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FAC-SIMILE OF THE BIBLIA PAUPERUM, supposed to have been executed between A. D. 1420 and 1435.

AN
INTRODUCTION
TO THE
Study of Bibliography.
TO WHICH IS PREFIXED
A
MEMOIR
ON THE
PUBLIC LIBRARIES OF THE ANTIENTS.

BY THOMAS HARTWELL HORNE.

ILLUSTRATED WITH ENGRAVINGS.

VOL. I.

LONDON:

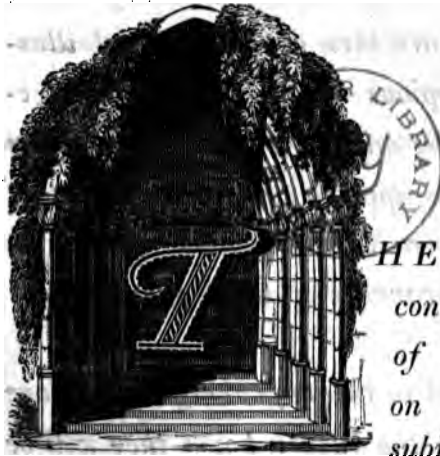
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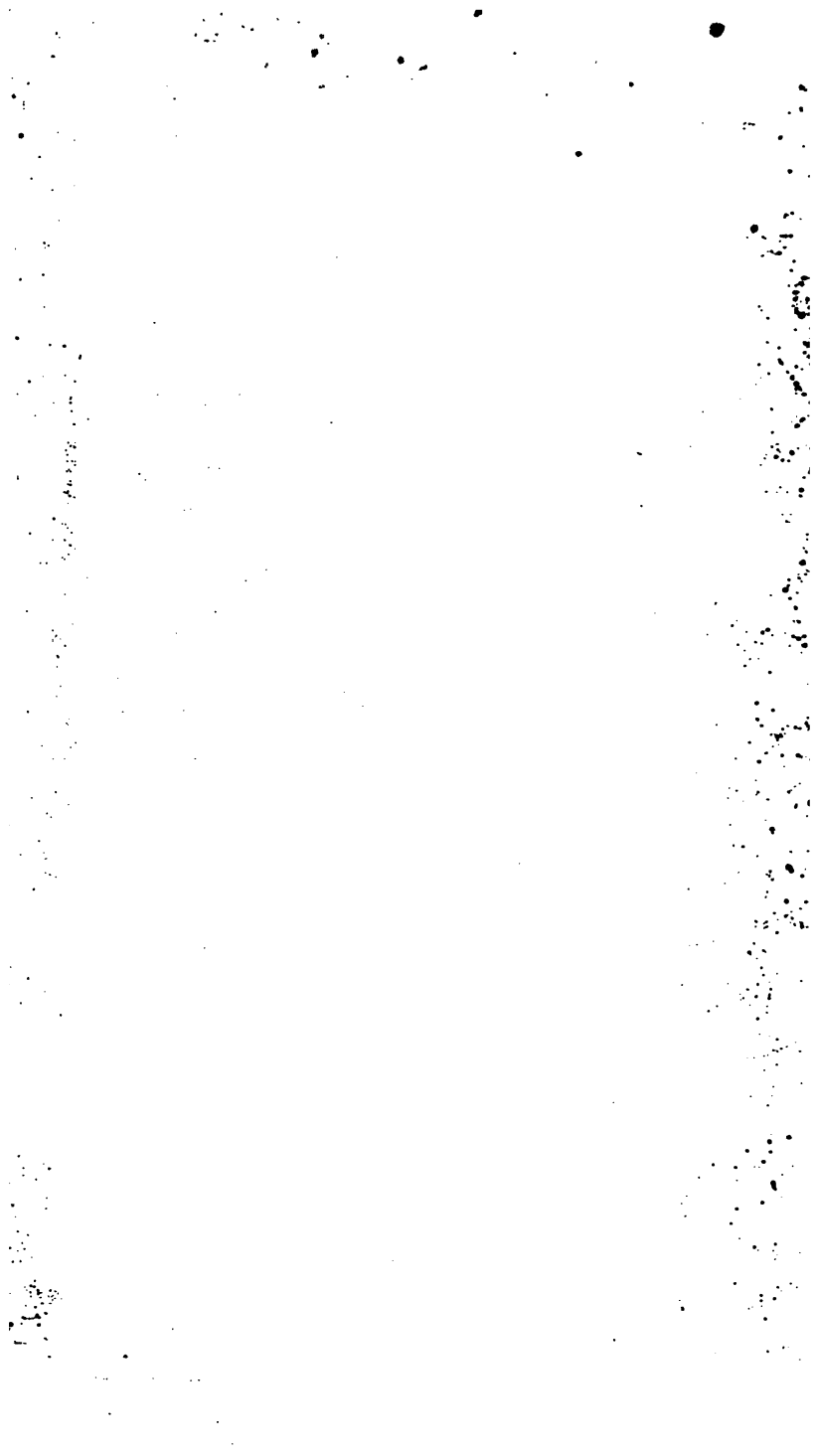
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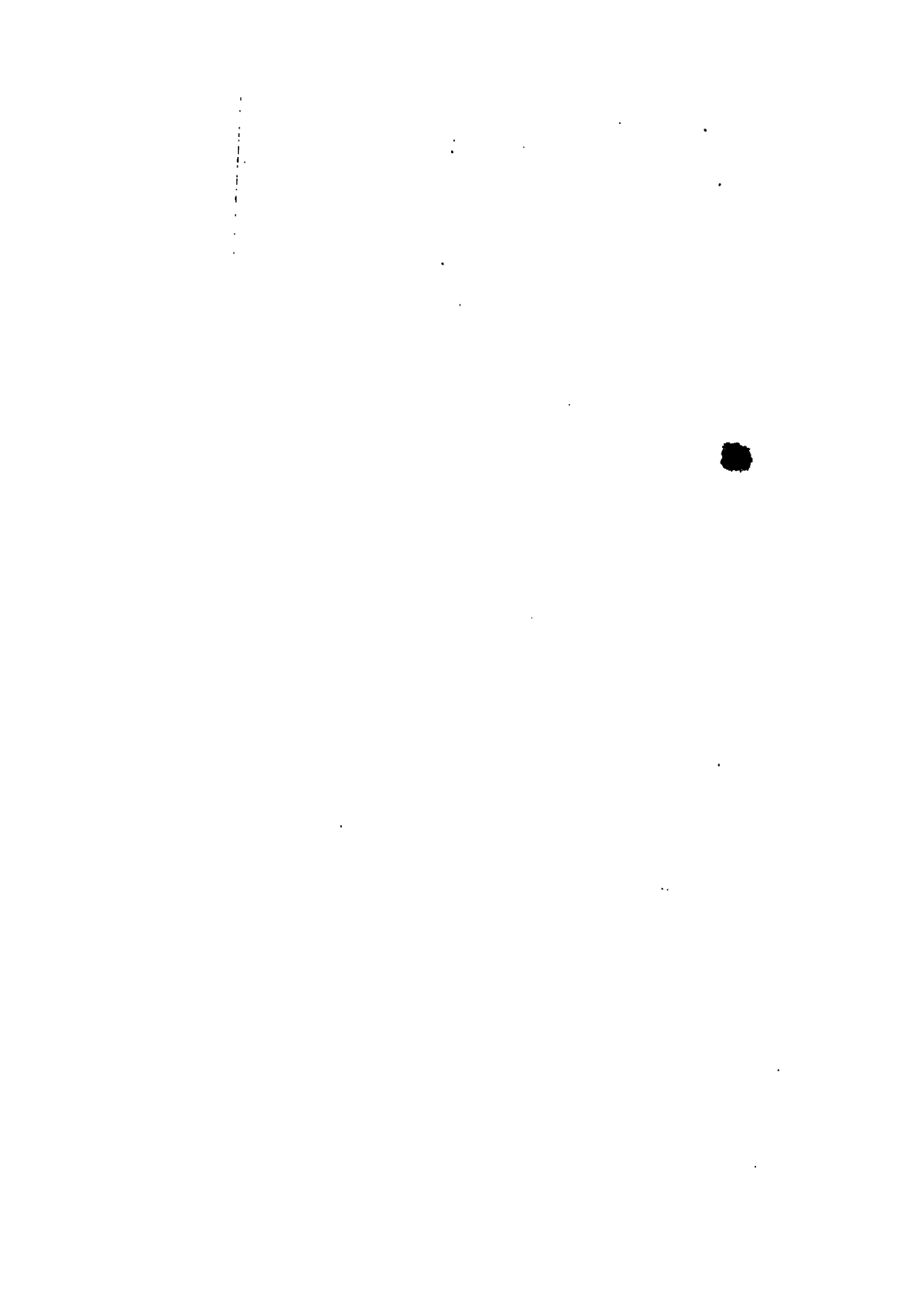


THE present Work contains a series of Observations on the different subjects, connected with Bibliography. It comprises, first, a summary account of the materials used for writing in different ages and countries: next in order succeed the origin and progress of writing and printing, the mechanism of the art, with comparative observations on the typographical execution of early printed books. This

(Horne)

*GAC





division is followed by remarks on the forms of books,—different styles of bookbinding in various ages,—the knowledge of books, and the causes of their relative value and scarcity, together with the best methods of preserving and repairing them. The principles, on which the classification of a library should be conducted, are then explained, and illustrated by a copious system for its arrangement. The last and most extensive division of the work is appropriated to a notice of the principal writers, who have treated on the different branches of Bibliography.

With regard to the engravings which are inserted, while the author hopes they will be found sufficient for the purpose of elucidating his work, it were unjust not to notice the fidelity and spirit with which they have been executed by a young artist, particularly the fac-similes of the Books of Images.*

* Mr. J. Lee.

Throughout the ensuing pages, the author's object has been to compress as much as possible; many articles of lesser moment, therefore, have been omitted, for which ample materials had been collected. On the third part of the present work, he has bestowed most labour, being anxious that nothing of importance should be omitted: and in giving this list of works on Bibliography, such only have been inserted, as appeared to be principally deserving of attention from the Bibliographical Student. Each book, as far as was practicable, has been described from personal examination; and, where the author could not obtain access to it, either in his own limited collection,* or in public libraries, he has availed himself of the labours of MM. BRUNET, CAILLEAU, DE BURE, PEIGNOT, RENOARD, SANTANDER, the Rev. T. F. DIBDIN, Dr. A. CLARKE, and other Bibliographers, both British and Foreign. From their volumes, as well as from the principal literary Journals, he has been enabled

to glean the various critical notices interspersed through the following pages: where particularly valuable, rare, or expensive works are to be found in our public libraries, especially in the Metropolis, care has been taken to indicate such library, noticing those chiefly which are the most easily accessible.

Such is the work now offered to the acceptance of the Public, as an Introduction to the infant science of Bibliography. Precepts, indeed, the author does not pretend to give:—he merely suggests some practical hints for Students; at the same time, he ventures to indulge a hope, that his labours may be favourably received by every lover of books, as well as by the more experienced Bibliographer.

July 1st, 1814.

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Da veniam scriptis, quorum non gloria nobis
Causa, sed utilitas, officiumque fuit.

OVID. *Epist. ex Ponto*, III. ix. 55.

MEMOIR
ON THE
PUBLIC LIBRARIES
OF THE
ANTIENTS.

THE Origin of Public Libraries is lost in that remote antiquity, which envelopes the history of the arts, sciences, and literature.—By some it has been ascribed to the Egyptians; while others have referred it to the Hebrews, whose regard for the traditions of their Patriarchs, and whose care in preserving the Sacred Books, became an example to other nations, and especially to the Egyptians.

§ 1. LIBRARIES OF THE JEWS.

From some expressions in the Book of Deuteronomy¹, it has been conjectured, that Moses formed a Library of the Sacred Books of the Hebrews: but the passage will not bear this construction. That may with more propriety be called a LIBRARY, which is mentioned in the se-

¹ Deut. xxxi. 24—26.

cond Book of Maccabees ; where Nehemiah is said to have “gathered together the acts of the “Kings and the Prophets, and David, and the “Epistles of the Kings concerning the Holy “Gifts’.” It is not improbable that the brave vindicator of his country’s liberty, Judas Maccabeus, had a Library, consisting of many valuable books and documents, from which he compiled the narrative of his own times.

The Jews “dwelling alone, and not being “reckoned among the nations” (agreeably to the divine prediction,)—we know nothing of their early literature, beyond the Books which are contained in the Old Testament. It has, however, been supposed that they had some towns, rendered famous by the sciences that were cultivated there². Among them was that, called by Joshua *Kiriath-Sepher*, or the CITY OF LETTERS, and which was situated near the confines of the Tribe of Judah³: and in later times the university or school of Tiberias was not less cele-

¹ 2 Mac. ii. 13, 23—25.

² Encyclopedie, par Diderot et D’Alembert. Tome 2. (folio edit.) p. 229. Art. *Bibliothèque*.

³ Joshua xv. 15. On this passage, Calmet observes that most commentators think that this place was denominated Kiriath-Sepher, or the City of Letters, either because literature was antiently taught there before the arrival of the Hebrews in Canaan; or, because the archives and other antient muniments of the Canaanites were preserved there.

brated. It is very probable that these academies were furnished with Libraries¹.

§ 2. LIBRARIES OF THE PERSIANS.

The Scriptures mention a Library of the Kings of Persia, which some imagine to have consisted of the historians of that country, and of memoirs on the affairs of state : but, in effect, it appears rather to have been a depository of the royal laws, charters, and ordinances². There was formerly a considerable Library at Susa, the residence of the Persian sovereigns ; where Metasthenes consulted the annals of the Persian monarchy, in quest of materials for his history. This library is mentioned by Diodorus Siculus : but it seems (like that mentioned by Ezra) rather to have been a collection of laws and records, than an assemblage of books of science.

§ 3. LIBRARIES OF THE CHALDEANS.

In the supposititious writings ascribed to Berosus, extravagant claims are made in behalf of the literature of the Chaldeans : but we do not

¹ Encyclopedie, tom. 2. p. 229.

² In Ezra v. 17. the Hebrew Text calls it the *House of Treasures* ; and it is so rendered in the Septuagint, and other versions. In Ezra vi. 1. it is afterwards called in the Hebrew Text, the *House of Rolls*, where the royal treasures were deposited : but the Septuagint and Vulgate versions (and after them Calmet) expressly call it a Library.

Scriptures, designated the *Septuagint*, which was undertaken at the suggestion of the celebrated rhetorician, Demetrius Phalereus, who first executed the honourable office of LIBRARIAN to Ptolemy; and whose learning and talents did not disgrace the judgment of his royal patron¹.

The measures of Ptolemy Philadelphus, for augmenting the Alexandrian Library, were pursued by his successor, Ptolemy Euergetes, but with less regard to the rights of private property. He is said to have caused all books, imported

to Apellicon an opulent Teian residing at Athens (vide infra § II. p. xvi.)

Various solutions have been proposed, to reconcile these contradictory statements of Strabo and Athenæus; which the compass of this note will not admit to be stated. They are given at length by M. Bayle in an amusing note (D) to the article Tyrannion, in his Dictionary, to which the reader is referred. Bayle's opinion is in favour of Athenæus, and that Strabo was mistaken. May not these discordant opinions be reconciled, by supposing that Neleus procured transcripts to be made of the works of Aristotle, and sold these copies to the king of Egypt, reserving the originals for his own use? This conjecture is the more probable, as Athenæus does not reckon Theophrastus among the book collectors; of whom he has given us a list in the passage above referred to.

¹ Joseph. Ant. Jud. lib. 12. c. 2. The names of the following persons have been transmitted, as the successors of Demetrius, in the care of the Alexandrian Library, viz. Zenodotus the Ephesian, Callimachus the Poet, Eratosthenes, and Apollonius Rhodius.—Morhof. Polyhist. tom. 1. p. 42. (ed. 1747.)

into Egypt by the Greeks or other foreigners, to be seized, and sent to the Academy or Museum; where they were transcribed by persons employed for that purpose: the copies were then delivered to the proprietors, and the originals were deposited in the Library. This sovereign borrowed of the Athenians, the Works of Sophocles, Euripides and Æschylus, and returned to them only the copies; which he had caused to be transcribed in the most elegant manner possible. The originals he retained for his own Library, presenting the Athenians with fifteen talents¹ for the exchange.

As the Museum (where the library was originally founded) was situated in that quarter of the city, which was called *Bruchion*, near the royal palace, the books were at first deposited there: when, however, this was filled with books to the number of 400,000 volumes, another supplemental library was erected within the *Serapeum*. The books here placed gradually increased to the amount of 300,000 volumes, making in the whole 700,000 books, of which the royal libraries were said to consist.

The Alexandrian Library continued for many ages in all its splendour, until the first Alexandrine War; when, during the plunder of the city, the library of Bruchion was destroyed by

¹ Upwards of £3,000 sterling. Amm. Marcel. lib. 22. c. 16.

fire, not by any concerted design, but accidentally by the auxiliary soldiers¹. The library in the Serapeum still remained, and was augmented by subsequent donations²; so that it surpassed the former both in the number and value of its books. At length, A. D. 642. after various revolutions under the Roman Emperors, (during which the library was sometimes plundered and sometimes re-established) it was utterly destroyed by the Saracens, under the orders of the Calif Omar, when they acquired possession of Alexandria.

Ab'ulfaragius (in his account of the tenth dynasty) has given us the following narrative of this calamitous event³.—When (says he) Alexandria was taken by the Mohammedans, Amrou their commander found there a celebrated philosopher, John the Grammarian, who from his love of literary labour was surnamed Philoponus; and with whose conversation Amrou was highly pleased. One day, Philoponus said to him.—“ You have visited all the public repositories in

¹ Aul. Gell. lib. 2. c. 17. Plutarch in Cæs. p. 152. (Vitæ, vol. iv. ed. Bryan.) Amm. Marc. l. 22. c. 16.

² Mark Antony gave the whole of the Pergamean Library, which amounted to 200,000 volumes, to Cleopatra, as the foundation of the new Library at Alexandria. Plutarch. in Ant. (Vit. vol. v. p. 125.) An additional Museum was subsequently erected by the Emperor Claudius, and called after his name. Sueton. in Claud. c. 42.

³ Ab'ulfaragii Hist. Dynast. p. 114. vers. Pocock.

“ Alexandria, and you have sealed up articles of
 “ every sort, which are to be found in Alexan-
 “ dria.—Concerning those things which may be
 “ useful to you, I presume to say nothing: but
 “ some of those which are of no service to you,
 “ may be suitable to me.”—Amrou replied:—
 “ And what is it you want?” “ The philo-
 “ sophical books” (said he.) “ This” (rejoined
 Amrou) “ is a request, upon which I cannot
 “ decide.”—He accordingly wrote to the Calif
 Omar, whose well known answer was dictated
 by the ignorance of a fanatic. “ If” (replied
 he) “ these writings of the Greeks agree with
 “ the Koran, or Book of God, they are useless
 “ and need not be preserved; if they disagree,
 “ they are pernicious and ought to be de-
 “ stroyed.”—The sentence of destruction was
 executed with blind obedience: the volumes
 of paper or parchment were distributed to the
 four thousand baths of the city; and such was
 their incredible number, that six months were
 barely sufficient for the consumption of this pre-
 cious fuel¹.

§ 7. LIBRARIES OF THE GREEKS.

Of Grecian Literature or History we have no
 authentic information, prior to the wars of

¹ Gibbon's *Decl. and Fall*, vol. ix. 440. The elegant histo-
 rian has endeavoured to disprove the *positive* account given by

Thebes and Troy: it would therefore be fruitless to seek for books in that nation before those events. The Lacedæmonians had no books: they expressed their meaning so concisely, that writing was considered a superfluous accomplishment.

LIBRARY AT ATHENS FOUNDED BY PISISTRATUS.

At Athens, on the contrary, the sciences and literature were diligently cultivated. Pisistratus, the tyrant, is said to have been the first who established a Library in that city, [B. C. cir. 562.] and deposited therein, the works of Homer, which he had collected with great difficulty, and at a very considerable expense. Afterwards the Athenians themselves, with great care and pains, increased their number: all these books however were seized and carried into Persia by Xerxes, when he obtained possession

Ab'ulfaragius, by *negative* arguments. It should however be considered that the positive evidence of an historian, of such unquestionable credit as Ab'ulfaragius is, cannot be set aside by an argument merely negative. His references (it has well been observed) to Aulus Gellius, (l. 6. c. 17.) Ammianus Marcellinus, (l. 22. c. 15.) and Orosius, (l. 6. c. 15.) are foreign from the purpose: for these writers only refer to the destruction of the Alexandrian Library in the time of Julius Cæsar, which has been noticed in the preceding pages; after which (as already stated) it was renovated and continued to flourish until its utter destruction by the Saracens.—Enfield's Hist. of Phil. vol. ii. p. 227, *note*.

of Athens, and burned the whole of the city except the citadel: but they were subsequently restored to the Athenians by Seleucus Nicanor king of Syria¹. The Emperor Adrian is recorded by Pausanias to have founded a Library at Athens².

On the invasion of the Roman Empire by the Goths, A. D. 260, Greece was ravaged, and in the sack of Athens, they had collected all the libraries, and were on the point of setting fire to this funeral pile of antient learning, had not one of their chiefs (possessed of more refined policy than his brethren) dissuaded them from the design; by the profound observation, that as long as the Greeks were addicted to the study of books, they would never apply themselves to the study of arms³.

¹ Aul. Gell. lib. 6. c. 17. Athenæi Deipnosoph. lib. 1. c. 4. —Athenæus has given us a catalogue of illustrious men, who were eminent for their collections. Among these, beside Pisisistratus, he mentions Polycrates of Samos, Euclid the Athenian, Nicocrates of Cyprus, Euripides, and Aristotle. It is rather singular, that he has not mentioned Plato, who is known to have been possessed with the Bibliomania, and to have purchased books at an *immense* price. Aul. Gell. lib. 2. c. 17.

² Pausan. in Atticis. lib. 1. c. 18. *sub fine*.

³ Zonaras, lib. 12. p. 635. Gibbon (vol. i. p. 434.) suspects this circumstance to be the fanciful conceit of a sophist. Zonaras, however, states it as a fact, which surely he would not have done, had not the event really taken place in the manner

§ 8. LIBRARY OF PERGAMUS.

Next to the Alexandrian Library, that of Pergamus was the most conspicuous: according to Plutarch, it comprised two hundred thousand volumes¹. It was founded, and successively enriched by the Eumenes, kings of Pergamus, all of whom were zealous promoters of the arts; and to one of whom we are indebted for the invention of parchment, *Charta Pergamena*².—The celebrated Attalus (whose wealth became proverbial among the Romans) surpassed all his predecessors in magnificence: after their example, he appropriated part of his treasures to the purchase of the principal works of his age. The Pergamean Library was given by Mark Antony

he has related it.—The Libraries and Schools of Athens sustained great injury during the incursions of the Goths at the close of the fourth century: they however survived that hazardous period, and continued to flourish till after the time of Justinian. Enfield's Hist. of Philos. vol. ii. p. 80.

¹ Plutarch in Anton. (Vit. vol. v. p. 125.)

² Strabo, lib. 13. tom. 2. p. 895. (ed. Oxon.) Pliny relates from Varro, that a dispute having arisen between one of the Ptolemies king of Egypt, and Eumenes king of Pergamus, the former refused to allow the exportation of Egyptian paper; in consequence of which Eumenes invented parchment, and ordered it to be manufactured at Pergamus. Nat. Hist. lib. 13. c. 11. The claim of Eumenes to the invention of Parchment has been questioned:—see, however, this subject noticed, *infra*, p. 46, 47.

to Cleopatra, for the foundation of a new Library at Alexandria, as already noticed¹. Vitruvius makes honourable mention of both these Libraries².

§ 9. LIBRARIES OF ROME.

If the antiient Greeks had but few books, the antiient Romans were possessed of a still smaller number: incessantly occupied by military expeditions, by defensive wars, and by the aggrandizement of their empire, that warlike people had but little leisure for the cultivation of Literature. It was not, until they had accomplished the conquest of Greece, that a taste for the arts, sciences, and books, was diffused among the Romans: the consequence of that event was, a more frequent intercourse with the Greeks; whose literature and arts were well adapted to soften the ruggedness of character and of manners, which distinguished those conquerors of the world.

§ 10. FIRST PUBLIC LIBRARY, FOUNDED BY

P. ÆMILIUS A. U. C. 586. B. C. 167.

Paulus Æmilius, having subdued Perses king

¹ Vide note 2. p. x. *supra*.

² Tertull. Apol. c. 18. Vitruvius, lib. 7. in præf. *Reges Attalici* (says he) *magnis philologiæ dulcedinibus inducti, cum egregiam Bibliothecam Pergami ad communem delectationem instituisent; tunc item Ptolemaus, infinito zelo cupiditatisque incitatus studio, non minoribus industriis ad eundem modum contenderat Alexandria comparare.* p. 190. (Argent. 1807.)

of Macedon, first enriched the city of Rome with a public Library, according to Isidorus¹; though Plutarch expressly says that he reserved the books of that king's Library for his sons, who were men of letters². This Library was subsequently augmented by Sylla.

§ 11. B. C. LIBRARY OF SYLLA.

On his return from Asia, where he had successfully terminated the first war against Mithridates, Sylla visited Athens, whence he took with him the Library of Apellicon the Teian; in which were the works of Aristotle and Theophrastus,—books (Plutarch observes), which at that time were not sufficiently known to the World³.

§ 12. OF LUCULLUS. B. C.

Lucullus, another conqueror of Mithridates, was not less distinguished by his taste for books. The number of volumes in his Library was immense, and they were written in elegant hands; but the use, which he made of them, was still more honourable than their acquisition. His library was open to all: the Greeks, then visiting Rome, resorted to the galleries and por-

¹ Isidori Origenes, l. 6. c. 4.

² Vit. Æmil. p. 180. Vit. (tom. 2. ed. Bryan.)

³ Plutarch in Syllá. (Vit. tom. 3. p. 81.) In what manner these writings of Aristotle and Theophrastus came into Apellicon's possession, vide *supra*, note 2. p. vii.

tics of Lucullus, as to the retreat of the Muses; and there spent whole days in conversation on literary subjects¹.

Notwithstanding both Sylla and Lucullus thus liberally gave public access to their literary treasures, still their libraries can, in strictness, be only considered as *private* collections. Among the various projects which Julius Cæsar had formed, for the embellishment of Rome, he meditated a Library, which should contain the largest possible collection of Greek and Latin works; and he had assigned to the learned M. Varro the province of selecting and arranging them²: but this design was frustrated by the assassination of the Dictator, so that the establishment of Public Libraries did not take place until the reign of Augustus.

§ 13. PUBLIC LIBRARY ERECTED BY ASINIUS

POLLIO.

The honour of suggesting these valuable institutions is, by the elder Pliny, ascribed to Asinius Pollio³; who erected a public Library in the Court of Liberty on the Aventine Mount.

¹ Plutarch in Lucullo—(Vit. tom. 3. p. 196.)

² Sueton. in Cæs. c. 44.

³ *Qui PRIMUS, Bibliothecam dicando, ingenia hominum rem publicam fecit.* Plin. Nat. Hist. lib. 35. c. 2. Ovid also ascribes this honour to Pollio, Trist. lib. 3. el. 1. v. 71, 72. He further decorated the library with images of the authors, whose

The Emperor Augustus, among other embellishments which he bestowed on the city of Rome, erected two public Libraries, the Octavian and the Palatine.

§ 14. THE OCTAVIAN LIBRARY.

The *Octavian Library* stood in the portico of Octavia, and was thus denominated in honour of his sister¹; though Plutarch² asserts it to have been in honour of Marcellus. The charge of this library was committed to C. Melissus, who had been manumitted by Augustus³.

§ 15. THE PALATINE LIBRARY.

The *Palatine Library* was added by Augustus to the temple of Apollo, which he had erected in that part of the Palatine House, which had been struck with lightning⁴. Here were deposited the *corrected* books of the Sybils⁵: and the superintendance of this library was given to C. Julius Hyginus⁶. Lipsius and Pitiscus have works were deposited therein. (Ibid. Orig. lib. 6. c. 4.) and particularly with that of the learned Varro. Plin. Hist. Nat. l. 7. c. 31.

¹ Dion. lib. 49. sub anno 741.

² In Marcello, *sub fine*. Lipsius thinks Plutarch must be mistaken in this passage; as Dio mentions a library, ten years before the death of Marcellus. De Biblioth. c. 6. Op. tom. 3. p. 631.

³ Sueton. de Illust. Gram. c. 21.

⁴ Ibid. in August. c. 29.

⁵ Ibid. c. 31.

⁶ Ibid. de Illust. Gram. c. 20.

cited two antient inscriptions, from which it should seem that the Palatine Library consisted of two distinct Collections, Greek and Latin: it survived the various revolutions of the Roman Empire, till the time of Gregory the Great¹ whose mistaken zeal led him to order all the writings of the antients to be destroyed.

§ 16. LIBRARY OF TIBERIUS.

The successors of Augustus, though they did not equally encourage literature, were not altogether regardless of its interests. We are informed by Suetonius², that Tiberius founded a library in the new temple of Apollo: from some incidental notices it also appears that he instituted another in his own house, called after him the Tiberian Library³.

§ 17. LIBRARY OF VESPASIAN.

Vespasian followed these laudable examples of his predecessors; and established a library in the Temple of Peace, which he had erected after Nero had set the city on fire⁴: and Domitian, in the commencement of his reign, restored at a vast expense the libraries which had been

¹ Lipsius de Bibl. c. 7. Pitisci Lexicon, tom. 1. p. 276. Brucker, Crit. Hist. Philosoph. tom. 1. p. 20.

² In Tiber. c. 74. ³ Vopiscus in Probo, c. 2. Aul. Gell. lib. 13. c. 19.

⁴ Sueton. in Vesp. c. 9. Aul. Gell. l. 16. c. 8.

burnt, by collecting copies from every quarter, and by sending scribes to Alexandria, either to copy or to correct volumes, from the celebrated Library in that city¹.

§ 18. THE CAPITOLINE LIBRARY.

Various writers have asserted that there was a library attached to the Temple of the Capitol; though it is by no means certain by whom it was founded. Lipsius ascribes it to Domitian; Donatus refers it to the Emperor Adrian, by whom at least it was enlarged, if not founded²; and who probably erected the Tiburtine Library, at Tibur in the vicinity of Rome³.

§ 19. THE ULPIAN LIBRARY.

But the most magnificent of all the Libraries, founded by the sovereigns of imperial Rome, was that of the emperor Ulpian Trajanus, from whom it was called the *Ulpian Library*. It was erected in Trajan's Forum, and was afterwards removed to the Viminal Mount, to ornament the warm Baths of the Emperor Dioclesian⁴. In this library were deposited the Elephantine Books,

¹ Sueton. in Domitian, c. 20.

² Lips. de Bibliothecis, c. 7. Donat. Roma Vetus ac Recens, lib. 2. c. 9. p. 105.

³ Aul. Gell. l. 9. c. 14. & 19. c. 5. Lips. de Biblioth. c. 8.

⁴ Aul. Gell. l. 11. c. 17.

(composed probably of ivory leaves or tablets;) in which were recorded the transactions of the emperors, the proceedings of the senate and Roman Magistrates, and the affairs of the Provinces, &c'. It has been conjectured, that the Ulpian Library was two-fold, Greek and Latin²: and some authors affirm that Trajan commanded all the books that could be found in the cities of the people whom he had conquered, to be immediately conveyed to Rome, in order to increase his library: nor is it improbable, that the younger Pliny suggested to his patron this method of enriching his collection³.

§ 20. THE GORDIAN LIBRARY.

The Library of Domitian having been consumed by lightning in the reign of Commodus⁴; was not repaired until the reign of the emperor Gordian; who rebuilt the edifice and founded a new library, adding to it the collection of books bequeathed to him by the celebrated Physician, Quintus Serenus Sammonicus⁵. Donatus conjectures that this library was deposited in the palace of Pompey⁶.

¹ Vopiscus in Aureliano, c. 1. Tacito, c. 8. et Probo, c. 2.

² Donat. Roma Vetus, l. 2. c. 24. p. 148.

³ Encyclopedie, tom. 2. (fol. edit.) Art. *Bibliothèque*.

⁴ Euseb. in Commodo. Paul. Oros. lib. 17. c. 16.

⁵ Julius Capitolinus in vit. Gord. Junioris, c. 18.

⁶ Roma Vet. lib. 3. c. 8. p. 199.

§ 21. PUBLIC LIBRARIES IN THE CITIES &c.
OF THE ROMAN EMPIRE.

In addition to the Imperial Libraries, there were others, to which the public had access, in the principal cities and colonies of the Empire. Thus, Pliny mentions a public Library, which he founded for the use of his countrymen¹: and Vopiscus relates, that the emperor Tacitus commanded the writings of the illustrious historian Cornelius Tacitus, to be deposited in the Libraries². From the number of calcined volumes, which have been excavated from the ruins of Herculaneum and Pompeii, it should also seem that collections of books were common in those cities.

The irruptions of the Barbarians, who desolated the Western Roman Empire, were far more terrible and destructive to the interests of literature, than either inundations, volcanoes, or earthquakes; and soon caused the disappearance of those libraries, which for several centuries had been multiplied in Italy. The Libraries in the East, however, escaped this devastating torrent: and both Constantinople and Alexandria preserved their literary treasures, until the sacking of those cities by the Turks or Saracens,

¹ Epist. lib. 1. ep. 8.

² In Tacito, c. 10.

who finally subverted the Roman Empire in the East.

The rise, progress and destruction of the latter or Alexandrian Library having been related in a former page¹, it only remains that some account be given of the Library at Constantinople.

§ 22. LIBRARY AT CONSTANTINOPLE.

When Constantine the Great, in the year 336², made Byzantium the seat of his empire, he in a great measure newly built that city, decorated it with numerous splendid edifices, and called it after his own name. Desirous of making reparation to the Christians, for the injuries they had sustained during the reign of his tyrannical predecessor, this prince commanded the most diligent search to be made after those books which had been doomed to destruction. He caused transcripts to be made of such books as had escaped the Diocletian persecution; to these he added others, and with the whole formed a valuable Library at Constantinople.

On the death of Constantine, the number of books contained in the Imperial Library was only six thousand nine hundred; but it was successively enlarged by the emperors, Julian³ and

¹ *Supra*, p. vi—xi.

² Zonaræ Annales, sub Anno.

³ It is by no means clear whether Julian enlarged the library founded by Constantine, or established another at Constanti-

Theodosius the younger, the latter of whom augmented it to one hundred thousand volumes. Of these, more than half were burnt in the seventh century, by command of the emperor Leo III. in order to destroy all the monuments that might be quoted in proof against his opposition to the worship of images. In this library was deposited the only authentic copy of the Council of Nice: it has also been asserted that the works of Homer, written in golden letters, were consumed at the same time, together with a magnificent copy of the Four Gospels, bound

nople: his inveteracy seems rather to have been directed against the writings of the Christians, than against the books of profane literature which their libraries contained. For, hostile as that emperor was to the Christians, (whose schools he commanded to be abolished and their libraries to be burned,) we are notwithstanding informed by Suidas, that he erected a Library at Nisbis (or Antioch,) which was afterwards consumed by fire, in the reign of Jovian. Julian was exceedingly desirous of possessing the Library of George the Capadocian, Patriarch of Alexandria, who had been assassinated by the populace: from two epistles of Julian's, which are still extant, we learn that the Arian Patriarch's library was richly stored with books of philosophy of all kinds, with many on history, rhetoric, and on other subjects, together with various writings of the Christians. These books the emperor commands the prefects of Egypt to procure for him by all means, and even to have recourse to torture, should attempts be made to secrete any of the volumes. *Suidas*, voce Jovianus, tom. ii. p. 131. (ed. Kusteri.) Julian, Ep. 9 to Ecdicius, and 36 to Porphyry.

in plates of gold to the weight of fifteen pounds, and enriched with precious stones.

The convulsions that weakened the lower empire, were by no means favourable to the interests of literature. During the reign of Constantine Porphyrogennetus (in the eleventh century) literature flourished for a short time : and he is said to have employed many learned Greeks in collecting books for a library, the arrangement of which he superintended himself. The final subversion of the Eastern Empire, and the capture of Constantinople by Mohammed II. A. D. 1453. dispersed the literati of Greece over Western Europe : but the Imperial Library was preserved by the express command of the conqueror, and continued to be kept in some apartments of the Seraglio ; until Mourad (or Amurath) IV. in a fit of devotion, sacrificed (as it is reported) all the books in this Library to his hatred against the Christians¹.

¹ Such was the information given to the Abbé Sevin; who arrived at Constantinople, in December 1728; but could not obtain admission into the Grand Seignior's Library. He was further informed that it contained only Turkish and Arabic MSS. and not one Greek or Latin Manuscript. *Toderini, Della Letteratura Turchesca*, tom. 22. p. 55. The Abbé Toderini was far more successful in his researches relative to the Imperial Library at Constantinople. Vide *infra* Part III. chap. 4. sect. 2.

SALVETE aureoli mei LIBELLI,
Mææ delicix, mei lepores,
Quàm vos sæpe oculis juvat videre,
Et tritos manibus tenere nostris !
Tot vos eximii, tot eruditi,
Prisci lumina sæculi et recentis,
Confecere VIRI, suasque vobis
Ausi credere lucubrationes,
Et sperare decus perenne SCRIPTIS ;
Neque hæc irrita spes fefellit illos.

HENRICUS DE RANTZAU, de Bibliothecâ suâ.

LIBER est lumen cordis, speculum corporis, virtutum magister, vitiorum depulsor, corona prudentum, diadema sapientum, gloria honorum, decus eruditorum, comes itineris, domesticus amicus, collocutor et congerro tacentis, collega et consiliarius præsentis, vas plenum sapientiæ, myrothecium eloquentiæ, hortus plenus fructibus, pratium floribus distinctum, principium intelligentiæ, memoriæ penus, mors oblivionis, vita recordationis. Vocatus, properat; jussus, festinat; semper præsto est, nunquam non morigerus; rogatus, confestim respondet; sincerus consultor, non assentatur; non loquitur ad gratiam, nemini parcens, quia neminem timet; nihil mentitur, quia nihil poscit; te nunquam fastidit, etiamsi tu illum fastidio habeas; arcana revelat; obscura illustrat; ambigua certiorat; perplexa resolvit, etc. etc.

LUCAS DE PENNA, apud Morhof. Polyhist. lib. I. c. 3. § 24.

AN
INTRODUCTION
TO THE
STUDY
OF
BIBLIOGRAPHY.

BIBLIOGRAPHY literally signifies the description of Books: in a more extended sense, it denotes the knowledge of books, as it regards, *first*, the *materials* of which they are composed;—*secondly*, the *subjects* discussed by their respective authors;—*thirdly*, the knowledge of the different editions of books, their degrees of rarity, curiosity, and real value;—and lastly, the rank which they ought to hold in the system of classification, adopted for arranging a Library.

Books are either *manuscript* or *printed*: the former are written with the hand, and offer to the bibliographer a variety of interesting inquiries. He ought to be acquainted with Manuscripts of every age, with the materials on

which they are written, the instruments antiently employed for writing, and the different characters used for the transmission of ideas.

The consideration of *printed books* leads us to the knowledge of the origin of Typography: and a bibliographer should be acquainted with the details of the art of printing, as well as with its history.

The present Manual, therefore, divides itself into three parts.

I. The **FIRST PART** will be found to contain a succinct account,

1. Of the different substances employed for manuscripts and printed books.

2. Of Manuscripts in general, including the origin of writing.

3. Of the History of Printing, whether with blocks or types, in Europe, Asia, and America, including the various improvements, which have been made in the typographic art.

II. The **SECOND PART** comprises,

1. Some general Observations on Books.

2. An Essay on the knowledge of Books, their relative value and scarcity; and

3. A System of Classification for a Library, exhibiting the order to be pursued in arranging the faculties and divisions of a Catalogue.

III. The **THIRD PART** presents an Arranged List of the principal works hitherto published, re-

lative to Literary History in general, and to Bibliography in particular; including also some account of the chief imperial, royal, and other modern Public Libraries, both British and foreign,—together with a concise statement of the principal schemes, which have been offered, for the classification of Libraries.

PART I.

CHAPTER I.

On the different Substances employed for Manuscripts and Printed Books.

SECTION I.

Substances in use before the Invention of Paper.

§ 1. STONE.—It is pretty generally agreed that stone and wood were the first substances, on which, in the earliest ages, figures, and afterwards letters, were engraven. Of this, we have abundant proof from the very antient monuments of the Chaldeans, and especially from the obelisks of the Egyptians, covered with hieroglyphics, which have subsisted to the present age, unimpaired by the ravages of time¹.

Josephus² relates that the descendants of Seth,

¹ Several obelisks were transported, by order of different Emperors, to Rome, where they still remain, monuments of Egyptian art.

² Ant. Jud. lib. 1. c. 2. *sub fine*.

knowing from a prediction of Adam that the world would be destroyed, once by fire and once by water, made two pillars,—one of brick, and the other of stone. On each of these columns they inscribed their astronomical discoveries; in order that, if the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit those discoveries to mankind: and this stone pillar (he adds) was to be seen in his time in the land of Siriad.

This account of Josephus is generally considered to be fabulous¹: nor is it improbable, that the credulous historian of the Jews confounds the pillars of the antediluvian Seth, with those erected *in Syria* by Seth or Sesostris, king of Egypt, to commemorate his conquests in Asia; and which columns Herodotus relates that he saw². From the sacred writings, however, we have indubitable evidence of engraving on stone³, in remote ages: the use of marble and stone in later times, for perpetuating the remembrance of events, is sufficiently attested by the

¹ It was, however, credited by Dr. Parsons; who, in his *Remains of Japhet*, (p. 346 *et seq.*) has ineffectually attempted to support their authenticity. Some plausible but (we think) unsatisfactory conjectures are also urged, in favour of the pillars of Seth, by the learned Author of "*Scripture Illustrated*," in his "*Thoughts on the subject of Early Writing*." (4to p. 8.)

² Herod. lib. 2. c. 106.

³ Exod. xxxi. v. 1.

Arundel marbles and other monuments of antiquity, now in existence.

§ 2. BRICKS.—The antient Chaldeans engraved or wrote their astronomical observations on bricks, for 720 years according to Epigenes, or for 480 years according to Berossus and Critodemus, as cited by Pliny¹.

Considerable quantities of bricks have, within a few years, been dug up, in the vicinity of Hilleh on the Euphrates, the spot where, according to Major Rennel, and the antient geographers, Babylon was situated: of these interesting relics of antiquity some specimens were transmitted from India; and it was stated in several periodical journals, that twelve engravings of them were to be made, and impressions of them circulated among the literati of Europe. Two of these bricks were presented to the National Institute at Paris. On them are engraven, or rather stamped, characters greatly resembling the arrow-headed Persepolitan characters, described by Chardin, Le Brun, and other oriental travellers. It would exceed the limits of this work to state the different hypotheses of learned men, concerning these characters.—Are they relics of the bricks, on which the Chaldeans inscribed their astronomical discoveries?—This interesting

¹ Nat. Hist. lib. 7. c. 57. ed. Bipont.

inquiry can only be answered by decyphering the characters,—a task that may now be almost regarded as hopeless¹.

§ 3. LEAD.—The use of lead, for preserving documents, was not unknown to the antients. In the book of Job (c. XIX. v. 24,) the patriarch expresses an ardent wish that his words were engraven on *lead* or on a rock. The *Works and Days* of Hesiod are said to have been inscribed on a leaden table, carefully preserved in the Temple of the Muses; which, when shewn to Pausanias, was almost entirely corroded through age². History indeed records that tablets of lead and copper³ have been indifferently employed for preserving treaties, laws, and alliances. Some writers have asserted, that *leaden paper* (*charta plumbea*) was formerly used; but it is most probable, that such paper, if it ever existed, was nothing else than thin plates of lead, reduced to a very great degree of tenuity by the mallet⁴. Montfaucon assures us that, in the year 1699, he purchased at Rome a book consisting

¹ In the *Monthly Magazine* for 1801, vol. xiii. p. 5, Dr. Hager has given an engraving of one of the Chaldee bricks, and has offered various conjectures concerning them.

² Pausanias, in *Bœoticis*, c. 31.

³ The treaty of the hero, Judas Maccabeus, with the Romans, was on copper (or brass according to the English Version), 1 Mac. c. VIII. v. 22.

⁴ Montfaucon, *Palæog. Græc.* p. 16.

entirely of lead, about four inches long, and three inches wide. Not only the two pieces which formed the cover, but also all the leaves (six in number,) together with the stick inserted through the rings which held the leaves together, as well as the hinges and nails, were entirely composed of lead. This volume contained Egyptian Gnostic figures, and other unintelligible writing¹: it is not known what has since become of this curious article.

§ 4. BRASS.—The use of brass among the Romans, for preserving their public memorials, is established by various authorities². The Roman soldiers, when in the field of battle, were allowed the privilege of writing their wills on their bucklers or on the scabbards of their swords³. It is certain that the Laws of the Twelve Tables were engraven on brass; and most probably perished in the fire, which in Vespasian's reign consumed the Capitol, and destroyed three thousand tables of brass, containing the laws, treaties, and other important documents of the Roman Empire⁴.

Brass was in like manner used in the East, as

¹ Antiq. Expliquée, tom. 2. p. 378.

² Liv. l. 3. c. 57. Pliny, Nat. Hist. l. 34. c. 9. Julius Obsequens de Prodigis, c. 122.

³ Cod. Justinian. l. 6. tit. 21. c. 25.

⁴ Liv. l. 3. c. 57.

we learn from the first Book of Maccabees¹, and the Syrian Churches, recently discovered in Malayala by the Rev. Dr. Buchanan, are in possession of six antient tablets, containing grants of privileges made to their ancestors: they are composed of a mixed metal; the engraved page on the largest plate is thirteen inches in length, by about four in breadth. They are closely written, four of them on both sides of the plate, making in all eleven pages: on the plate, reputed to be the oldest, the writing is perspicuously engraved in nail-headed or triangular headed letters, resembling the Persepolitan or Babylo-nish. On the same plate there is writing in another character, which has no affinity with any existing character in Indostan. The grant on this plate appears to be witnessed by four Jews of rank, whose names are distinctly written in an old Hebrew character, resembling the *Palmyrene* Alphabet. The Jews of Cochin are in possession of two similar tablets, containing privileges granted at a remote period².

§ 5. WOOD.—Plutarch³ and Aulus Gellius⁴

¹ Ch. viii. v. 22. and xiv. v. 18.

² Appendix to Buchanan's "Star in the East." Dr. B. has translated the Jewish Tablets in his "Christian Researches in Asia," p. 220—224. 8vo edit. The original plates are deposited in the Public Library at the University of Cambridge.

³ In Solon. (Vit. vol. i. p. 20. ed. Bryan.)

⁴ Noctes Atticæ, lib. 2. c. 12.

respectively state that Solon inscribed his laws on tablets of wood, called *Axones*: but it is also certain that some of that philosopher's laws were engraven on stone, and that these stone tables were called *Κυρβεις*. A considerable difference of opinion prevailed among the Greek writers, not only concerning the names of the tablets, but also with regard to the material of which they were composed; their opinions have been stated by Archbishop Potter¹; and on a review of this subject, it should seem that all general laws concerning sacrifices &c. were inscribed on triangular pieces of stone called *Κυρβεις*, while those which related to civil affairs, were engraven on the wooden axones, which were quadrangular, and so contrived as to turn on axes, and present their contents on all sides to the eyes of the passenger. Plutarch mentions these axones, as remaining in the Prytaneum, till his time². The laws on both these tables were inscribed *βουστροφιδον*, that is, the first line began from right to left, the second from left to right, and so in succession, in the same manner as ploughmen trace their furrows.

The laws of the *Twelve Tables*, among the Romans, were written on oaken planks according to Scaliger, or on ivory tables according to

¹ Archæol. Græc. vol. i. p. 157. (ed. 1804.)

² In Solon. *ut supra*. Meursii Lect. Att. lib. 1. c. 22.

Pomponius¹. It is however more certain, that they were engraven on *brass*; as already stated².

Table-books, made of small pieces of wood, were in use, long before the time of Homer³: box, ivory, and citron-wood were the materials chiefly employed⁴. They were, in general, covered with wax, and the writing was executed with styles or pens made of gold, silver, brass, iron, copper, ivory or bone, which at one end were pointed for the purpose of inscribing the letters, and smooth at the other extremity for the purpose of erasing. These tablets, when collected and fastened together, composed a book, called *Codex* or *Caudex*, i. e. a trunk, from its resemblance to the trunk of a tree cut into several planks⁵. Sometimes also they were

¹ De Orig. Jur. lib. 2. Pitisci Lex. Rom. Ant. tom. 2. Art. *Tabula duodecim*.

² Liv. lib. 3. c. 57. See p. 84, *supra*.

³ Plin. Nat. Hist. lib. 13. c. 11. Iliad. lib. 7. 169. Table-books were also known to, and used by, the Jews. See Prov. c. 11. 3. Isa. c. xxx. 8. Habakkuk, c. 11. 2. & Luke c. 1. v. 63.

⁴ Pitiscus, in his Lexicon (tom. 2. voce *Pugillares*) has cited several passages from classic writers, who mention these articles. The Edicts of the senate were written in ivory books, thence called *Libri Elephantini*. See p. xx, xxi, *supra*.

⁵ Varro, *De Vita Pop. Rom.* l. 3. makes use of the word *Codex*; and Seneca, *De Brevitate Vita*, c. 21. writes *Caudex*.

covered with chalk or plaster, substances equally proper for receiving every kind of writing : when they consisted only of two leaves, they were called *libri diptychi*, and in this form they are sometimes met with, in the cabinets of the curious.

When epistles were written on tables of wood, they were usually tied together with thread, the seal being put upon the knot; whence the phrase, *linum incidere*, to break open a letter, was common among the Romans. Some of these table-books were large, and perhaps heavy : for, in Plautus, a schoolboy of seven years old is represented as breaking his master's head with his table-book¹.

Table-books, written upon with styles, continued in use on the continent, till the commencement of the 14th century, and (it should seem from a passage in Chaucer²) were not entirely laid aside, in England, in the 15th century³. The Library of St. Victor, at Paris, contains an account of the expenses of Philip le Bel written on tables of wax : and Mr. Astle⁴ mentions, that in the Sloanian Library (No. 4852) there are six specimens of Cufic writing, on

¹ Bac. Act. 3. Scen. 3. v. 38. (ed. Bipont.)

² Sumpners Tale, v. 33.

³ Astle's *Origin of Writing*, p. 201. fol. ed. 1803.

⁴ *Ibid.* p. 199.

boards, about two feet in length by six inches in breadth. Before the invention of paper, the Chinese wrote, with an iron pen, on boards or broad pieces of bamboo¹.

Wood also was the material employed by the antient Britons for conveying their ideas: an account of their method of writing will be found *infra*, CHAP. II. SECT. II. § 7.

§ 6. LEAVES.—Several antient nations made use of leaves for the transmission of their ideas. Pliny, speaking of the Egyptians, says that men first wrote on the leaves of palm-trees²: Diodorus Siculus³ relates, that the judges of Syracuse were antiently accustomed to write, on the leaves of the olive-tree, the names of such persons, as were condemned to banishment, which sentence was termed *petalism*, from the Greek word *πεταλον*, a leaf.

Writing on palm, and other leaves, is still practised in different parts of the East: in the Sloanian Library, there are upwards of twenty manuscripts written on leaves, written in the Sanskrit, Burman, Peguan, Ceylonese and other

¹ Duhalde, *Descr. de la Chine*, tom. 2. p. 239. He further states, that the Chinese wrote, antiently, upon *metal*, specimens of which were, in his time, preserved by the curious.

² *Hist. Nat.* l. 13. c. 2. Servius, (in *Virg. Æn.* lib. 3. v. 443.) says that the Cumæan Sybil wrote on palm-leaves. *Juv. Sat.* 8. v. 126.

³ *Lib.* 11. c. 88. (tom. 4. p. 270. ed. Bipont.)

languages'. In Tanjore and other parts of India, the palmyra-leaf is used². The common books of the Birmans, like those of the Hindoos, particularly of such as inhabit the southern parts of India, are composed of the palmyra-leaf, on which the letters are engraved with a stylus³. In their more elegant books, the Birmans write on sheets of ivory, or on very fine white palmyra leaves: the ivory is stained black, and the margins are ornamented with gilding, while the characters are enamelled or gilt. On the palmyra leaves the characters are in general of black enamel: and the ends of the leaves and margins are painted with flowers in various bright colours. A hole through both ends of each leaf serves to connect the whole into a volume by means of two strings, which also pass through the two wooden boards that serve for binding. In the finer binding of these kinds of books, the boards are lacquered; the edges of the leaves are cut smooth and gilt, and the title is written on the upper board. The two boards are by a knot or jewel secured at a little distance from the boards, so as to prevent the book from

² Ayscough's *Catalogue of the Sloane Library*, p. 904—906. Mr. Astle (p. 49.) has described several specimens of this sort.

³ Dr. C. Buchanan's "*Christian Researches in Asia*," p. 70, 71. 8vo edit.

⁴ Symes's *Account of an Embassy to Ava*, vol. ii. p. 409. 8vo.

falling to pieces, but sufficiently distant to admit of the upper leaves being turned back, while the lower ones are read. The more elegant books are in general wrapped up in silk cloth, and bound round by a garter, in which the natives ingeniously contrive to weave the title of the book¹.

The Ceylonese sometimes make use of the palm-leaf, but generally prefer that of the *Talipot-tree*, on account of its superior breadth and thickness. From these leaves, which are of immense size, they cut out slips from a foot to a foot and a half long, and about two inches broad. These slips being smoothed, and all excrescences pared off with a knife, they are ready for use without any other preparation: a fine-pointed steel-pencil, like a bodkin, and set in a wooden or ivory handle ornamented according to the owner's taste, is employed to write or rather to engrave their characters on these talipot slips, which are very thick and tough. In order to render the characters more visible and distinct, they rub them over with oil mixed with pulverised charcoal, which process also renders them

¹ *Asiatic Researches*, vol. iv. p. 306. 8vo edit. Dr. F. Buchanan has given an interesting account of the table-books and libraries of the Burmans, which is well worthy of the reader's perusal.

so permanent, that they never can be effaced. When one slip is insufficient to contain all that they intend to write on any particular subject, the Ceylonese string several together by passing a piece of twine through them, and attach them to a board in the same way as we file newspapers¹.

§ 7. BARK OF TREES.—The bark of trees has been employed as a material for writing, in every age and quarter of the globe; by the antient Latins the inner bark (*Liber*) was preferred; which word in time was used to denote a book itself. The use of bark for this purpose still prevails in some parts of Asia.

Thus, the sacred books of the Birmans are sometimes composed of thin stripes of bamboo, delicately plaited, and varnished over in such a manner as to form a smooth and hard surface upon a leaf of any dimensions: this surface is afterwards gilt, and the sacred letters are traced upon it in black and shining japan; the margin

¹ Percival's *Account of the Island of Ceylon*, p. 205. The Bramin manuscripts, in the Telinga language, sent to Oxforp from Fort St. George, are written on the leaves of the Ampans, or *Palma Malabarica*. In the Maldive Islands, the natives are said to write on the leaves of the Macarciquean, which are a fathom and a half (*nine feet*!) long, and about a foot broad: and in other parts of the East Indies the leaves of the plantain tree are employed for the same purpose.

is illumined by wreaths and figures of gold on a red, green or black ground¹.

The books of the Battas (one of the nations inhabiting the island of Sumatra) are composed of the inner bark of a certain tree, cut into long slips, and folded in squares, leaving part of the wood at each extremity to serve for the outer covering. For this purpose, the bark is shaved smooth and thin, and afterwards rubbed over with rice-water: the pen employed is a twig or the fibre of a leaf, and their ink is made of the soot of *dammar* (a species of resin or turpentine) mixed with the juice of the sugar-cane². One of these books in the *Batta* character is in the Sloanian Library (No. 4726), written in perpendicular columns on a long piece of bark folded up so as to represent a book. The Sumatran manuscripts of any bulk and importance are written on the inner bark of a tree, cut into slips of several feet in length, and folded together in squares; each square or fold answering to a page or leaf. For more common occasions they write on the outer coat of the joint of a bamboo, sometimes whole, but generally split into pieces of two or three inches in breadth: and these writings, or rather scratchings, are often per-

¹ Symes's *Embassy to Ava*, vol. ii. p. 409.

² Marsden's *History of Sumatra*, p. 383.

formed with a considerable degree of neatness¹.

A specimen of writing on bark occurs in the Sloanian Library (No. 3748): it is a Nabob's letter on a piece of bark, about two yards in length, and richly ornamented with gold. In the Bodleian Library (No. 3207) is a book of Mexican hieroglyphics painted on bark; and a specimen of Latin writing on bark is to be found in the Cotton Library². The people of Malabar also frequently write upon bark with the stylus, of which several specimens are preserved in the British Museum, as well as in many other repositories³.

§ 8. LINEN.—Among the various substances which necessity induced men to employ, we may mention *linen*, which Pliny seems to think was confined to private persons and their concerns. We learn however, from various authorities, that these *linen books* (*libri lintei*) contained also the names of the magistrates, treaties and public documents relative to the republic, which were deposited in the temple of the goddess *Moneta*, and likewise private letters of the emperors⁴.

¹ Marsden's *History of Sumatra*, p. 201.

² Astle on Writing, p. 201, 202

³ Catalogue of the Harleian MSS. Nos. 170, 195, 196.

⁴ Plin. Nat. Hist. lib. 13. c. 2. Livy, lib. 4. c. 7 & 20. Vo-piscus, in Aurel. c. 8.

But the use of linen was not confined to the Romans: the very old Egyptians were accustomed to write on linen such things as they designed should last for a long time, of which some remains are extant to this day¹. There is now deposited in the British Museum a piece of writing of this kind, which was taken out of an Egyptian mummy; and a similar book was found in a mummy by M. Denon².

§ 9. SKINS.—In some ages and places, men have written on the skins of different animals. Herodotus relates, that by a very antient custom, the Ionians called their books *dipteræ* or skins, because, at a time when the plant *Biblos* was scarce, they substituted for it the skins of sheep and goats. The historian adds, that many of the barbarians used skins for this purpose within his recollection³. Zonaras and Cedrenus also state that in the fire, which happened in Constantinople in the fifth century (in the reign of the emperor Basiliscus,) the flames consumed the intestines of a serpent, on which the *Iliad* and *Odyssey* of Homer were written in letters of gold⁴.

¹ Harmer's Observations on Scripture, vol. iii. p. 132. 4th edit.

² A fac-simile of this may be found in M. Denon's Travels.

³ Herod. l. v. c. 58. tom. 2. p. 23. ed. Oxon. 1809.

⁴ Zonaræ Annales, tom. 2. l. 14. p. 52, (Paris, 1687) Cedreni Chron. tom. 1. p. 351. (Paris, 1647.)

§ 10. PARCHMENT AND VELLUM.—Parchment is the skin of sheep and goats, prepared by such a process as renders it proper for writing upon ; vellum is a finer kind of parchment made of the skins of abortive or at least of sucking calves, and adapted to the same purpose.

The use of parchment is confessedly very antient : there is every reason to believe that the Jews employed this article for transcribing their law. Josephus states that Ptolemy Philadelphus was struck with admiration, when the *volume* or roll containing the law of God in golden letters was unfolded. The antiquity of parchment is further confirmed by Diodorus Siculus, who states that the antient Persians wrote their registers, or national annals, on skins : their neighbours the Parthians also (according to Pliny¹) employed the same material in his time.

It is by no means certain, who was the first inventor of parchment. Pliny relates from Varro, that, a dispute having arisen between one of the Ptolemies, king of Egypt, and Eumenes king of Pergamus, concerning the erection of their great Libraries, Ptolemy prohibited the exportation of the papyrus or Egyptian paper ; in consequence of this Eumenes caused parchment to be prepared from skins, which was thenceforth called *Pergamenum* and *Charta Pergamena* from the city

¹ Nat. Hist. lib. 13. c. 11.

of Pergamus. Learned men have differed in opinion, concerning the Eumenes noticed by Pliny: it most probably was Eumenes, the son of Attalus I. who improved and rendered more common the use of parchment, but who certainly could not have been its inventor¹. The durability of parchment has caused it to be used in every succeeding age for deeds and other important documents.

Sometimes the skins of other animals were employed for the formation of manuscripts. Thus, the library at Dresden contains a Mexican calendar traced on *human skin*; and that of Vienna presents another MS. from the same country, full of figures designed and coloured on the same material.

§ 11. LEATHER.—In the coffer of a synagogue of the Black Jews, in the interior of Malayala, Dr. Buchanan relates that there has been found an old copy of the law, written on a roll of leather: the skins are sewed together, and the roll is about fifteen feet in length. It is in some places worn out, and the holes have been patched with pieces of parchment.

Some of the Jews suppose that this roll came originally from Senna in Arabia; others have heard that it came from Cashmire. The Cabul

¹ Peignot, *Essai sur l'Histoire du Parchemin et Velin*, Paris, 1812.

Jews, who travel annually into the interior of China, say, that in some synagogues the law is still found, written on a roll of leather; not on vellum, but on a soft flexible leather, made of goat skins, and dyed red; which corresponds with the description of the roll above mentioned¹.

Among the literary treasures that enriched the library of M. la Serna Santander, was a beautiful Hebrew Pentateuch, written on fifty-seven skins of oriental leather, sewed together with threads or strips of the same material: it formed a roll of one hundred and thirteen French feet in length. The characters are large, of a square form, and unaccompanied by vowel points. An engraving of the two first lines of this MS. is given in the first volume of M. Santander's Catalogue.

SECTION II.—*Paper.*

§ 1. PAPHYRUS.—The most antient of all the papers was made from the inner films of the *papyrus* or *biblos*, a species of rush growing on the banks of the Nile; whence it has been called *Egyptian Paper*². The time of its discovery is

¹ Appendix to Buchanan's "Star in the East."

² It was formed into rolls, at the extremity of which was a ticket containing the title of the book: each roll was written on one side only, and, for the reader's accommodation, was divided into several compartments or pages,—as exhibited in the manuscripts obtained from the ruins of Herculaneum.

not known : according to Isidore, Memphis was the first city where it was made : according to Varro (as cited by Pliny) it must be dated from the founding of Alexandria in Egypt ; Pliny himself thinks it of much greater antiquity, and relates from Cassius Hemina (an antient annalist) that the books of Numa, who lived 300 years before Alexander, were discovered 535 years after his decease, in a perfect state of preservation¹. Sometimes leaves of *parchment* were *intermixed* with those of *papyrus*, when the latter were too weak. M. Peignot mentions that in the library of St. Germain-des-Prez there formerly was a MS. of St. Augustine's works, written in this manner, and which was nearly 1100 years old².

There are only a few fragments preserved of MSS. on Egyptian papyrus : one of the largest is that mentioned by Montfaucon, and formerly

¹ Plin. Nat. Hist. lib. xiii. c. 13. (c. 27. ed. Bipont.) Mr. Bruce has several very curious observations on the natural history of the papyrus, which will not admit of being detailed. See his Travels, vol. vii. p. 117, *et seq.* 8vo edit.

² Peignot, Dict. de Bibliologie, tom. ii. p. 24. The Library of St. Germain-des-Prez was unfortunately burnt in 1794 : but the MS. of St. Augustine, and several others of high antiquity, were rescued from the flames, and are now deposited in the Imperial Library. Fournier, Dict. de Bibliographie, p. v. See an interesting account of a MS. on Egyptian papyrus, at present in the British Museum, in Mr. Beloe's *Anecdotes of Literature*, vol. i. 54—57.

deposited in the Ambrosian Library at Milan, and which is now in the Imperial Library at Paris. It is a Latin translation, by Rufinus, of some books of Josephus's Jewish Antiquities: the characters are Lombardo-Roman, of the fifth century, and almost effaced.—Mabillon, and the authors of the *Nouveau Traité de Diplomatique*, mention a few other fragments of manuscripts on papyrus.

We learn from Pliny, that the Egyptians made their paper in the following manner.—They began with lopping off the two extremities of the papyrus, viz. the head and the root, as of no use to the manufacturer: the remaining stem they slit lengthwise into two equal parts; and from each of these they stripped the thin scaly pellicles, of which it consisted, with the point of a needle or knife. The innermost of these pellicles were considered as the best, and those nearest the rind as the worst: they were accordingly kept apart, and manufactured into different sorts of paper. As the pellicles were taken off, they were extended on a table; two or more of them were laid transversely over each other, so that the fibres formed right angles. In this state they were cemented together by the muddy water of the Nile, and subjected to the operation of a press, in order to produce adhesion. When the water and pressure proved ineffectual, a paste

made of the finest wheaten flour, mixed with a small proportion of vinegar, was used; the sheets were again pressed, and afterwards dried in the sun¹. After this process, they were flattened and smoothed, by beating them with a mallet; when they became *paper*: which was sometimes polished by rubbing with a smooth hemisphere of stone, glass, &c.

Although paper was an important branch of commerce to the Egyptians, yet its manufacture was not materially improved, until the Romans became masters of Egypt: to their invention and industry the Egyptians were indebted for the polishing with ivory, and the operations of the hammer and press.

Pliny has enumerated several kinds of this paper²:

1. *Charta Hieratica*.—Sacred Paper: it was appropriated solely to religious books. Afterwards,

¹ Mr. Bruce denies this account of Pliny to be correct, and states that no such quality is to be found in the water of the Nile: on the contrary, he found it of all others the most improper, until it had settled, and was absolutely divested of all the earth which it had gathered in its turbid state. Mr. Bruce made several pieces of paper from the papyrus both in Abyssinia and in Egypt; and is of opinion that the saccharine matter, with which the whole juice of the plant is impregnated, causes the adhesion of the strips together, and that the use of the water of the Nile is simply to dissolve this sugar, and put it perfectly and equally in fusion. Travels, vol. vii. 125.

² Nat. Hist. lib. xiii. c. 12. (c. 23. ed. Bipont.)

from adulation of Augustus, the best sort was called *Charta Augusta*, and the second kind was termed *Charta Liviana*, in honour of his wife Livia.—Our Imperial and Royal papers probably correspond with these two sorts.

2. *Charta Amphitheatrica*, from the place where it was manufactured : this was a coarse kind of paper ; but being greatly improved in its texture by the processes introduced by Fannius, it was called, after his name,

3. *Charta Fanniana*.—The paper, however, which was not so curiously manufactured, retained its former name of *Charta Amphitheatrica*.

4. *Charta Saitica* was made from the coarser pieces of the papyrus, and derives its name from the town of Sais, where it was manufactured in great abundance.

5. *Charta Tæniotica*, thus called from the place where it was made : it was a still coarser kind than any of the preceding sorts, and sold only by weight.

6. *Charta Emporetica*, (or shop-paper) as its name imports, was unfit for writing, and used only for tying up parcels.

These different sorts of paper were of various sizes.—The best, which was prepared from the inmost parts or heart of the papyrus, was thirteen inches broad ;—the *C. Hieratica*, eleven ;—the *C. Fanniana*, eleven ;—the *C. Amphitheatrica*,

nine ;—the *C. Saitica* was still narrower, and would not bear the hammer ;—the *C. Emporetica* was not above six inches in breadth. The *C. Augusta* was held in great esteem for its whiteness and smoothness, but was so thin as scarcely to bear the pen ; consequently it sunk, and the letters appeared through, on the other side. To remedy this inconvenience, the Emperor Claudius caused paper to be made of a thicker texture, which was called *Charta Claudia*, in honour of the inventor. That emperor also caused a still larger sort of paper to be made, termed *Macrocollum* : its sheets were from one foot to a foot and a half broad ; but, being found inconvenient in the use, it was soon discontinued.

The Claudian paper was held in the greatest request, the Augustan being reserved for the writing of imperial letters : the Livian paper kept its rank, possessing none of the properties of the first, but in every respect resembling the second. This sort of paper was very durable ; and Pliny states, that there was in his time abundance of volumes of Caius and Tiberius Gracchus, of Cicero, Augustus and Virgil, all written on it ; and to these may be added the books of Numa Pompilius, abovementioned (page 49).

As the date of the invention of this useful art of making paper is doubtful, so the time when it was lost, or superseded by one more

convenient, is equally uncertain. Eustathius, the Scholiast on Homer, says it was disused in his time, in 1170. Montfaucon has mentioned fragments, written on this paper in the *sixth* century: Mabillon endeavours to prove its existence in the *ninth* century, and even that there were some popish bulls written on it so late as the *eleventh* century. He gives, as instances, a part of St. Mark's Gospel preserved at Venice, as being upon papyrus, and the fragment of Josephus at Milan upon cotton paper; while Maffei proves this to be just the reverse, that of St. Mark being cotton, and the other he thinks indisputably to be Egyptian papyrus, so that Mabillon's authority, as to the papal bulls, may fairly be questioned. Mr. Bruce confirms the opinion of Maffei¹.

§ 2. PAPER OF BARK (*Charta Corticea*).—Of the origin of this paper we know nothing: Montfaucon² thinks it the same as the *xylochartion* of the Greeks. Though some authors have confounded this sort of paper with that made from the papyrus, its name evidently indicates it to be made from the bark of trees. The Scholiast on the Basilics³ expressly affirms it, and adds

¹ Travels, vol. vii. 128.

² Montfaucon, Palæograph. l. i. c. 2.

³ Lib. 24. cited by Du Cange, Gloss. Med. et Inf. Græc. tom. i. p. 1026, 1027.

that it was used for the Imperial Protocols, in order to render the forging of false diplomas more difficult.

Paper made of bark is thicker than that of papyrus, and not only breaks easily, but also separates into lamina; so that, on lifting up the surface, the letters come off, and the paper remains blank: of this, an instance occurred in a MS. on paper of bark, which Montfaucon saw in the library of St. Germain des Prés. He observes, however, that it is very difficult to distinguish the latter from paper made with the papyrus.

§ 3. CHINESE PAPERS.—The Chinese make their paper from the bark of the bamboo and other trees¹: it is so thin and transparent that it will only admit of writing upon one side. Frequently, however, they double their sheets, and cement them together with a fine glue, which is scarcely discernible; the paper being so smooth and even, and the glue so thin and clear, that it appears like a single leaf. The invention of paper in China is said to have been about fifty years after the birth of Christ; though some writers have contended that it is of much earlier antiquity among that people.

¹Duhalde, (tom. ii. p. 239, vol. i. p. 366, of English fol. edit.) has described at great length the processes pursued by the Chinese. See also Barrow's Travels in China, 4to. p. 310.

Each province in China has its own paper : thus, in the province of Se-tchuen it is made of hemp ;—in the province of Fo-kien, it is prepared from soft bamboo ;—in the northern provinces, the bark of the mulberry-tree is employed ;—in the province of Tche-kiang, wheat or rice-straw is manufactured into paper ;—in the province of Kiang-nan, the Chinese make a kind of parchment from the cocoons of silk-worms, which they call *Lo ouen tchi* : it is fine, smooth, and fit for inscriptions ;—lastly, in the province of Hou-quang, the tree Tchu or Ko-tchu furnishes the principal material for paper.—The Chinese also *re-manufacture* old paper, in order to supply the extraordinary demands for this article.

The finest silk-paper is that manufactured at Samarkand, the metropolis of Great Tartary : it is very highly esteemed in the East, and is used by the Chinese for printing, as well as the other sorts of paper mentioned above. It is probable that the discovery of silk-paper was communicated to the neighbouring nations,—first to the Indians, and afterwards to the Persians : from them it passed in the seventh century to their Saracen Conquerors, who transmitted it to the Arabs, next to the Greeks¹, and

¹ Laminet, *Recherches sur l'Imprimerie*, p. 29.—Peignot, *Dict. de Bibliologie*, tom. ii. p. 28.—The Harleian Library in

these to the Latins, at the time of the Crusades.

§ 4. JAPANESE PAPER is made from the bark of the *Morus papyrifera sativa*, or true paper-tree, by the Japanese called *Kaadsî*¹: it undergoes a very long preparation, in order to reduce it into a paste, proper for making paper. With this paste is mixed a very glutinous extract from rice and the root *oreni*, which renders the paper extremely solid and beautifully white. There is also a false paper-tree, which the Japanese term *Kads Kadsira*². It affords only a coarse paper, fit for packing and for similar purposes; and is made in the same manner as the preceding sort.

The Japanese paper is so prodigiously strong, that the materials from which it is manufactured might be made into *ropes*. Kaempfer adds, that the British Museum contains a very valuable Greek MS. of the *Geoponics*, with scholia hitherto inedited: it is on *silken leaves*, and was written towards the close of the twelfth century. Cat. Harl. MSS. vol. i. (preface) p. 26, and vol. ii. p. 272. No. 1868.

¹The plant is thus designated by Kaempfer.—*Papyrus fructu mori celsa, sive morus sativa, foliis urticæ mortuæ, cortice papyrifera*. Amœn. Exoticæ. p. 471.

²The *Papyrus procumbens, lactescens, folio longo lanceolato, cortice chartaceo* of Kaempfer, p. 474. Kaempfer has given plates of these plants, and described at considerable length the Japanese processes in manufacturing their papers, pp. 466, *et seq.*

at Syriga (the capital of the province of that name) there is a kind of paper sold, which is fit for bed-hangings and wearing apparel; it is said to bear so great a resemblance to silk or woollen stuff, that it is often taken for those articles.

§ 5. **BOOTAN PAPER** is prepared, by a simple and unexpensive process, from the bark of a tree, there called *Deah*. The bark is divided into small shreds, and steeped and boiled in a ley of wood-ashes: it is then drained, and reduced (by beating on a stone with a wooden mallet) to an impalpable pulp; which is thrown into a reservoir of water and well stirred about, in order to cleanse it from the coarse and dirty particles that float upon the water. It also undergoes a further depuration in another large reservoir of clean water. When the preparation is complete, the parts are finely broken, and that which sinks in the water appears mucilaginous to the touch. This paste is then formed into sheets, upon small reeds set in frames, in the following manner:—The labourer dips the frame in the water, and raises up a quantity of the pulp; which, by moving the frame in the water, he spreads equally over the surface of the reeds: he then raises the frame perpendicularly, the water drains off, and the frame is hung up till the sheet is nearly dry;—it is then taken off, and suspended upon lines.

This process corresponds, in a great degree, with that adopted by the Japanese. Colonel Turner states, that the paper thus prepared is of a much stronger texture than that of any country with which he is acquainted ; as it is capable of being *woven* (when gilt by way of ornament) into the texture of silk and satin, to which use Colonel Turner has seen it frequently applied in the manufactures of China¹.

From the bark of a tree by them called *plio-kloi*, the Siamese manufacture two kinds of paper, one white and the other black : both of which are coarse and ill made².

§ 6. MADAGASCAR PAPER.—In the island of Madagascar, paper is made from the bark of the tree *Avo*, in a manner not unlike that adopted in Bootan. The bark is boiled for two days in a good ley, made of the ashes of the same tree, till it becomes soft and supple : next it is washed in clean water, beaten to a proper consistency, and poured afterwards on mats made of exceedingly fine reeds, twisted and regularly joined together, in order to be drained and become paper. It is then placed on a leaf of *Balisier*, oiled with *menachil*, to dry in the sun : each dried leaf or sheet is afterwards dipped in a

¹Turner's Account of an Embassy to the Court of Teshoo Lama, in Tibet, 4to. p. 101.

²Peignot, Dict. de Bibliol. tom. ii. p. 16.

thick decoction of rice to prevent the paper from sinking, and is again dried. In this manner the paper becomes smooth, even, and fit for use¹.

§ 7. ASBESTOS PAPER.—The mineral production known by the name of Asbestos², possesses the remarkable quality of resisting the action of fire, without sustaining any material diminution of its weight. Its flexible fibres were, by the ancients, manufactured into linen cloth; and the ingenuity of the moderns has formed them into paper, on which books have been *printed*³. The process of fabricating this paper has been described by Mr. Edward Lloyd, in the Philosophical Transactions of the Royal Society⁴. A certain quantity of the asbestos was pounded in a stone mortar, till it was reduced to a downy substance, like cotton: all the earthy or stony particles, remaining in the asbestos, were separated by means of a fine sieve; the asbestos was then taken to a mill, and made into sheets of paper by the ordinary process. This

¹ Flacourt, Hist. de Madagascar, p. 196.

² *Asbestos Amiantus*, Flexible Asbestos or Mountain-flax of mineralogists.

³ Dr. Burman, Professor at Brunswick, published a treatise on this fossil; of which *four* copies were taken off on Asbestos paper. Peignot, Essai sur l'Histoire du Parchemin, p. 2, *note*.

⁴ Vol. xiv. pp. 823, 824.

sort of paper, however, is very brittle and coarse.

§ 8. COTTON PAPER.—According to Montfaucon, *Cotton Paper* (*Charta Bombycina*) was discovered towards the end of the ninth or early in the tenth century¹. Casiri states it to have been first manufactured in Bucharía; and that the Arabs ascribe its invention to Joseph Amra. He adds that they substituted cotton for silk in the fabrication of paper, the use of which they had learned in Persia.

The Arabs established their new manufacture at Ceuta in Africa, and soon after at Xativa, Valencia, and Toledo, in Spain. Bucharía was conquered by them about the year 704: but the art of making cotton paper was not introduced into Europe till the eleventh century; and before the twelfth century we have authentic evidence of its being used in the Eastern Empire, and also in Sicily. Montfaucon cites (from a Sicilian historian) a diploma of king Roger, written in the year of the world 6653 [i. e. A.D. 1145]; in which that sovereign says that he had renewed on parchment a charter which had been written on *cotton paper* in the year 1100, and another which was dated in 1112. Montfaucon adds that about the same time, the empress

¹ Palæogr. Gr. lib. i. c. 2. Casiri, Bibliotheca Arabico-Hispana, tom. ii. p. 9.

Irene, in the statutes for some religious houses at Constantinople, says that she had left three copies of the same statutes in parchment, and one on paper of cotton. From that period this paper was still more in use through the Eastern empire; and innumerable Greek manuscripts are found written on it in all the great national libraries.

The discovery of cotton paper was fortunately made at a time when parchment was so exceedingly scarce, that the writings of many valuable authors were *erased*, for the sake of the parchment; on which homilies and other works of devotion were written'!!! The invention of this paper is supposed to have destroyed the manufacture of the Egyptian paper (*papyrus*); for which it is every way a preferable substitute, being both more proper for writing on, as well as more durable.

The wretched quality of this paper, subject to moisture, worms, and other changes, caused the Emperor Frederic II. to issue a decree in 1221, enacting that all public instruments on cotton paper should thenceforth be null and void, and allowing the term of two years, within which ancient deeds should be transcribed on parchment.

' The MSS. written on parchment thus erased, are called *codices rescripti*:—some further account of them will be found *infra*, chap. ii. sect. ii. § 8.

Though the use of cotton paper has become *general* only since the thirteenth century, learned men have thought that we are indebted for it to the Chinese, from whom it passed successively to the Indians, Persians, and Arabs; and by the latter was communicated to the Western people. Its use in Greece has already been noticed; from that country it passed into Italy, and was by the Venetians communicated to the Germans in the ninth century, under the name of *Greek Parchment*. In Spain, the manufacture of this article did not commence till after the expulsion of the Moors from that country.

Cotton Paper has been called by various names:—the Greeks termed it *Βομβυκίνη*, from *Βομβυξ*, (the Greek name of the cotton shrub);—the Latins, *Charta Bombycina* or *Bombica*;—some writers of the middle age, *Charta gossypina* or *aylina*;—the Spaniards, *Pergamino di panno*. It has also been named *Charta cotonia*, and *Charta Damascena*, the paper manufactured at Damascus being of a superior quality; and, lastly, *Charta Serica*, from the circumstance of cotton being imported from the country of the Seres (China)¹. The manufacture of cotton paper is said to be still carried on, to a considerable extent, in the Levant.

§ 9. PAPER FROM LINEN RAGS.—This sort of

¹ Peignot, *Essais sur Parchemin*, p. 15.

of Saint Louis (1270)¹. Since the fourteenth century, the use of paper, manufactured from linen rags, has become general.

§ 10. PAPER FROM DIFFERENT SUBSTANCES.—

Paper being an article of extensive usefulness, various experiments have been made by ingenious men, to re-fabricate it from old papers, and also to manufacture it from vegetable substances. For the former, we are indebted to M.M. De Yeux, Pelletier, Molard, and other eminent chemists: a patent was obtained for a similar purpose in this country, but the attempt failed, and the manufactory has been discontinued;—re-fabricated paper may easily be known by its great brittleness, breaking frequently when attempted to be folded or rolled up. This circumstance probably caused the failure of the concern.

Many vegetables have been discovered, which may be advantageously substituted for rags; and many schemes were proposed, but none were carried into effect, previously to the year 1751, when M. Guettard in France, and in 1765 Dr. Schaeffer in Germany, published their experi-

¹ De Vaines, Dict. de Diplomatie, tom. ii. 171. The learned Benedictine mentions a still earlier specimen of paper from linen rags: it is a document, with seals, dated 1239, signed by Adolph, Count of Schaumburg, *ibid.* 172.

ments; and communicated new specimens of paper, made from the bark, leaves, wood, straw, &c. of different plants, shrubs, and trees. In 1786, M. de Villette published a volume of his works, in 16mo, on paper made from the bark of the lime-tree, at the end of which are twenty specimens of papers, fabricated from as many different vegetables. Some attempts were made, a few years since, to manufacture paper from straw¹, which however did not entirely succeed. Paper has also been manufactured from rice by the Chinese: it is semi-transparent, of a firm texture, and feels somewhat like the article made from the papyrus. These specimens were of green, pink, and straw colours, of a most vivid hue; and are said to be stronger, when wetted.

§ 11. COLOURED PAPER.—The most natural colour of the materials employed for writing, both among the antients and moderns, has uniformly been white, while that of the letters or characters has been black;—the contrast between these two colours rendering the writing more prominent, and consequently more easy to be read. There have however been a few ex-

¹ Some copies of Mr. Accum's excellent "System of Chemistry" (1st edition) were printed on straw paper. The 19th vol. of the "Transactions of the Society of Arts" exhibits a specimen of paper made from the paut plant, a native of Indostan.

ceptions, even in the remotest times ; and these two colours have been varied, as luxury, custom, or the taste of the scribe have required. Herodotus and Diodorus Siculus mention sheep, calf, and other skins which were tinged with purple and yellow, and on which the letters were written in gold and silver with reeds. The Romans had their wooden or ivory table-books, and also their tesseræ, covered with green wax: their capital letters, and the titles of their books were likewise executed with vermilion as well as among the Greeks.

The practice of writing with coloured ink on coloured vellum also prevailed in the East ; but the *red* writing was most celebrated in Greece, and under the Greek emperors became a prerogative of the Royal Family. The emperor Leo I. ordained, by an imperial rescript issued in the year 470, that no imperial decree should be considered authentic, unless it were signed by the emperor's hand with purple ink. This regulation continued in force, until the end of the empire ; but in the 12th century, the privilege of using purple ink was granted to the great officers of the empire¹.

¹ De Vaines, Dict. de Diplomatique, tom. i. 512. The mark of the Greek emperors' signatures was a cross, made with this sacred ink, which was composed of the blood of the *Murex* or purple-fish so amply described by Pliny. (Nat. Hist. lib. ix.

In the Augustan age it became the fashion to ornament manuscripts with vermillion; and these decorations afforded employment to a distinct class of artists, who were respectively called *rubricatores*, *illuminatores*, *miniatores*, and *miniculatores*: at first they decorated the initial letters of periods and paragraphs with red strokes, and afterwards the letters themselves were wholly red¹.

St. Jerome, who flourished in the fourth century, states that, in his time, there were books written on parchment of a purple colour, in letters of gold and silver, the covers of which

c. 60.) This shellfish was roasted; and with its pulverized shells the ink was made.

¹ Pliny relates, (Nat. Hist. lib. xxxv. c. 2.) that Varro wrote the lives of seven hundred illustrious Romans, which he enriched with their portraits: and the celebrated Pomponius Atticus, the friend of Cicero, was the author of a work on the actions of the great men among the Romans, which he ornamented with their portraits. Nepos in Attico, c. 18. The practice of illuminating MSS. continued till the commencement of the 17th century: in the first age of printing, many books have the capitals, and also the first letters of periods, formed by the hand, and painted red or blue, but chiefly red. Hence originated the custom of printing the title-pages of books in black and red, which subsisted in France till the close of the 18th century, and which has been adopted in some late reprints of valuable old works, and in a few modern books. It may not be irrelevant to notice further, that the word *rubric* (which occurs in books of Civil Law and in Liturgies,) originated from this custom.

were splendidly decorated with gems. Ducange has cited similar instances from early ecclesiastical writers¹.

Various public libraries, both in our own country and on the continent, contain MSS. chiefly of the Scriptures, on coloured parchment, and written in gold and silver characters: a few of these shall be noticed.

The MS. of the four Gospels in the Cotton Library, entitled *Harmonia Evangelica*, has the two first leaves of St. Matthew, of a purple colour; and the two or three first pages of each Gospel are in *gold* capital letters.—The Imperial Library at Vienna possesses a precious MS. of the book of Genesis, on *purple* vellum, written on letters of gold and silver: it consists of twenty-six leaves, and is generally allowed to be at least fourteen hundred years old: there is also in the same library a manuscript fragment of the Gospels of St. Mark and St. Luke, in *gold and silver* letters.—The *Codex Aureus*, or *Golden Book* of the Royal Library, at Stockholm, contains the Gospels: the leaves are purple; the letters, partly golden, and partly white, with *black* capital letters.—The Electoral Library, at Munich, has a *Codex quatuor Evangeliorum*, of the 9th century, written on *violet-coloured* paper, with golden letters, and towards the end, with silver

¹ Ducange, Gloss. Med. et Inf. Lat. tom. iv. p. 654. col. 2.

letters.—The *Codex Argenteus* of Ulphilas (preserved in the Library at Upsal,) contains the Four Gospels, written in gold and silver letters on purple vellum. There are, in all, 187 leaves; but this precious relic of antiquity is imperfect at the beginning and end.—The Electoral Library at Dresden possesses a *Turkish Chronicle*, written on paper of different colours; and Wetstein states that he had seen two Psalters, the one in Greek, then preserved in the Library of Zurich, and the other in Latin, in the Monastery of St. Germain at Paris; both of which were written on purple or violet-coloured parchment¹.

Although white paper has hitherto been chiefly employed for printing, both on account of its superior cheapness, as well as for the greater effect which it gives to the letter-press; there are nevertheless extant some works, printed on *coloured* paper, which it may not be altogether irrelevant shortly to notice. The latter however can only be regarded as articles of curiosity, and must always be rare; because a few copies only have been printed, and the expense of their impression is also much greater than that incident to printing on white paper. M. Peignot has published a very curious Bibliography of

¹ Nov. Test. Wetstenii, tom. i. Prolegom. pp. 1, 2.

the principal works, known to be in existence, on coloured paper¹; and from this the inquisitive reader will find some particulars in the Appendix (No. II.) to this volume.

CHAPTER II.

On Manuscripts in general, including the Origin of Writing.

SECTION I.

The Origin of Writing.

It is scarcely possible to assign the precise period when mankind first began to give existence to their thoughts, and to transmit their ideas to posterity, by writing: and it is equally difficult to ascertain what was the form of the first characters. Two modes of writing are generally allowed to have prevailed from a very remote age, 1. The *writing or representing of thoughts* by figures, suitable to the ideas intended to be conveyed; and 2. The *writing of sounds*, which is supposed to have succeeded the former; and

¹ Repertoire des Bibliographies Speciales, p. 153, *et seq.* We are also partly indebted to M. Peignot, for the above account of MSS. on coloured vellum, &c.

which by means of certain characters, significant of the sound of language, enables us to transfer our ideas from the eye to the ear, and *vice versa*.

From the general prevalence of hieroglyphic or picture-writing, not only in antient times, but also among the inhabitants of America, China, and the Friendly Islands, when they were respectively first discovered, it has been inferred by most of the literati, who have investigated the origin of letters, that hieroglyphic writing is the most antient; and that the writing of sounds has flowed from the latter. Much of the difficulty attending this question has arisen from the supposed necessary connexion between these two modes of representing ideas;—a connexion, however, of which the author of these hints does not perceive the strict necessity: indeed (as he hopes will be satisfactorily evinced) it is equally probable that, when mankind diverged to a remote distance from the spot where they were settled after the Flood, they did in the lapse of time lose the use and knowledge of letters, which had been transmitted to them by their ancestors.

Among the different alphabetic writings, the Chaldean, Egyptian, and Samaritan or Phœnician, are the only ones that dispute the honour

of antiquity ; but which of these was the primordial language, is a point that has greatly exercised the ingenuity of learned men. Buxtorf, Conringius, Spanheim, Meier, Marinus, and Bourguet, consider the Chaldean to be the parent language, whence all the rest have proceeded. Cicero, Jamblichus, Tertullian, and Plutarch ascribe the honour of inventing letters to the celebrated Thoth, the son and secretary of Misraim : and their opinion is espoused by Kircher, who has been strenuously opposed by Renaudot. By Pliny and Diodorus Siculus, the Phenicians are regarded as the authors of writing; and with them agree Genebrard, Bellarmin, Huet, Montfaucon, Calmet, Renaudot, Joseph Scaliger, Grotius, Casaubon, Bishop Walton, Bochart, Vossius, Capellus, Father Simon, the late Mr. Astle, Mr. J. M. Good, and many others. By Phenicia, are understood not only the towns on the seacoast of Palestine, but also Judea and the country inhabited by the Canaanites and Israelites : by *Phenician writing* is intended the Samaritan or antient Hebrew, differing from the square or Chaldean Hebrew, which is comparatively of modern date ; and which, according to the opinions of St. Jerome, St. Irenæus, and Clement of Alexandria, has been adopted by the Jews since their return from the Babylonish

Captivity¹. An additional proof in favour of the antiquity of the Phenician letters is, the very great resemblance of the Samaritan characters to those of the Greeks; whose language is confessedly the most antient in the world, having subsisted upwards of three thousand five hundred years, while few other languages have continued living and intelligible more than five hundred years. The most generally received opinion is, that Cadmus the Phenician, who settled in Bœotia B. C. 1500, first communicated letters to the Greeks: and this sentiment is supported on the authorities of Herodotus, Diogenes Laertius, Pliny, Plutarch, and others among the antients, and on those of Scaliger, Salmasius, Vossius, Bochart, and other moderns.

The Greek characters originally bore a perfect resemblance to those of the Phenicians; but, although in the course of time they varied from their primitive form, yet they still present numerous similar features, which indicate their origin; and the oldest Greek monuments, when compared with the most antient Samaritan coins and medals, present characters exactly similar. The most antient writing of Europe therefore proceeded from the Samaritan, and not from the Chaldee, to which it has not a single trait

¹ De Vaines, *Dict. de Diplomatique*, tom. i. pp. 416, 417.

of conformity, nor from the Egyptian with which it has no connexion whatever¹.

The Pelasgi were the first people of Greece, who either by means of navigation or by the colonies which they planted, communicated their method of writing to the Etruscans: and from the light which has been thrown on Etruscan literature, we learn that of the eighteen letters, which compose the alphabet of the latter people, eight are precisely similar to the same number of Samaritan characters, and six others exhibit some traits of resemblance to as many Samaritan letters. Ten of the Etruscan letters are evidently the same as those now in use; and the remaining eight strongly approach them. Consequently our letters have been transmitted to us, through the intervention of the Greeks and Latins, from the Samaritans².

The antiquity of the Phenician characters being thus demonstrated, the question now presents itself:—From whom did the Phenicians themselves receive them?—Were these letters of human invention? Or, was the knowledge of letters immediately communicated to man by the Supreme Being? Almost every writer, Mr. Astle particularly, has advocated the former

¹ Renaudot, *Mem. de l'Academ. des Inscriptions*, tom. ii. p. 249. De Vaines, tom. i. p. 418. ² De Vaines, tom. i. p. 418.

opinion, and has urged it with much ingenuity; but when the subsequent hints are attentively considered, the author conceives that the latter sentiment will be found most consistent with reason and with probability¹.

Mr. Astle, (who has investigated this topic with minute attention,) and the other advocates for the *human* invention of letters, suppose men to have been placed in a state of absolute barbarism and ignorance, and left to work out every thing for themselves as necessity and experiment should lead them. But, when were mankind in this state of barbarism? We know from the inspired volume, that the Creator, on beholding the various works which he had commanded into being, pronounced them *very good*; and that the first man gave *names* to the different animals which presented themselves before him; which he surely could not have done, had he not been taught a language of some kind or other by his Maker. And, notwithstanding his faculties would be greatly weakened by the Fall, yet he may reasonably be presumed to have continued in as good a capacity for making any kind of improvement, as any of his posterity have been in the

¹ For the remarks on the Divine Origin of Letters, the author is principally indebted to the very able critique on the first edition of Mr. Astle's work on writing, in the *Monthly Review* (Old Series,) vol. lxxi. p. 273, *et seq.*

highest state of civilization. One cannot but think that he brought out of Paradise a language so far perfect at least, as to answer all the occasions which man in that infant state of the world could have for it: and with regard to any improvements of which it was capable, what should render him and his immediate descendants less likely to make them than any nation of men who have lived since the Flood?

Further, the longevity of the Antediluvians was favourable to their improvement in any arts, which their ingenuity had invented: accordingly we learn from GEN. IV. 21, 22, that in the seventh generation they had made themselves acquainted with music, and the management of metals; and were, in the time of Noah, so far skilled in the science of practical navigation, as to be able to build an ark. If therefore it was *within the reach of human capacity* to work out the invention of *alphabetical writing*, the Antediluvians were as likely to make the discovery as any of their post-diluvian posterity.

From these considerations then it is highly probable that the use of letters was known before the Flood¹: Josephus, indeed, has expressly as-

¹ Bishop Cumberland, in his remarks on Sanchoniatho's Phœnician History, supports the opinion that letters were known before the Flood, at great length and by various learned arguments, which will not admit of abridgment.

serted that remains of antediluvian writing were to be seen in his own æra, on the pillars ascribed to the descendants of Seth, and consequently also the workmanship of Antediluvian ages. This assertion, however, is generally considered as a fable¹.

Let us now consider the circumstances in which we find mankind after they had left the Ark. Moses informs us, that “the whole earth was of one language and one speech;” a manner of speaking which he would not have used before men had multiplied to a very considerable number. And *they*, i. e. the whole race of mankind, came to the land of Shinar, and from thence were scattered “abroad upon the face of all the earth.” (Gen. xi. v. 1.—91.) That we may be the better satisfied of this fact, the account is repeated, with the addition of this express circumstance, that it was the language of *all* the earth, which was then confounded. From this account of Moses it is evident that all mankind kept together *till* the confusion at Babel; when they separated, or “from thence did the Lord scatter them abroad upon the face of *all* the earth;”—the sons of Japhet, north-westwardly, through Mesopotamia and Syria, to people Europe and its adjacent islands; the sons of Shem, to countries on the East;—while Ham, with his

¹ *Vide supra*, p. 31.

descendants, peopled the neighbouring countries, together with Palestine, Egypt, and the rest of Africa.

Now, in the course of such a dispersion as this, a state of barbarism may be met with: all the arts and accomplishments of civilization would be neglected, and soon lost among men whose time and labour were wholly occupied with providing the immediate necessities of life; and were we to suppose a people in comfortable circumstances to be acquainted with letters, and to be reduced to a state of difficulty and necessity like that just mentioned,—their letters would soon be forgotten, and their language degenerate into what may properly be called a jargon. This was the case of the emigrants from Shinar, and would be most remarkably so with those who should be removed to the most distant settlements: accordingly, those who by repeated removals wandered to Europe by one way, and to India by another, lost the use and knowledge of letters entirely. Those who continued in or near Shinar, free from the solitudes and distractions attending a removal, probably retained the knowledge and use of them in their perfection; while such as, though obliged to move, did not go so far, lost their knowledge of letters in part only;—still retaining enough of them to be a foundation, both of reviving

them among themselves, and teaching them to others.

As the removal to Cansan was not a great one, the people who went thither would probably remember enough of letters, to be able to revive them soon after they had made themselves easy in their settlements; and, being by their situation led to the practice of navigation and commerce, they would carry the knowledge of letters to those nations who had lost them, and thus be accounted their inventors. Agreeably to which Quintus Curtius, Lucan, Hesychius, and Porphyry ascribe the invention of letters to the Phenicians.

The progenitors of Abraham were among those who staid in or near the land of Shinar, and would probably retain much of the language spoken before the dispersion: and, as they did not leave Ur, their settlement in that country, until Abraham was seventy-five years old, and then removed not far, they would not be likely to lose or change their language, or forget the use of letters, on the supposition that they had been acquainted with them. Further, their letters would probably continue the same, which had been in use among them, and would not require the alterations that were found necessary, on the experience and use of the letters taught

by Palamedes, and by others who learned them from the Phenicians.

Of all the antient languages, the Hebrew evidently retains its primitive simplicity: and hence many learned men have contended that it was the original language spoken before the Confusion. From the Mosaic account of that event, it is plain that the language of the whole earth was confounded, and consequently that of the Hebrews as well as others; although the number of words, similar both in sound and idea to those of the Hebrew, which are to be found in other languages, afford a strong presumption in favour of the Hebrew being the primæval language. It is not however unreasonable to suppose their method of writing (the old Samaritan) to be the same as that which received its improvement and perfection by a long use of the Antediluvian Patriarchs; if it was not a knowledge imparted to man by the Father of Lights, and, as such, furnished at the dispensation of it with all the perfection necessary for the purposes to be served by it. The latter part of this conjecture appears to be the most reasonable: for the means of communicating all the thoughts, reasonings, and speculations of one man to another, and of one age and country to another, by the different combinations of twenty-

two different characters, is a discovery which seems to be much too excellent and sublime, to have been made by unassisted human reason.

The result, then, of the preceding observations may thus be briefly stated. Tradition speaks most strongly for the use of letters first known and practised in those parts, from which the dispersion of mankind was made. Hence it is reasonable to presume,

1. That letters were known before the Dispersion.

2. That (as already intimated¹) they were known even before the Deluge.

3. That the knowledge of language and of letters was communicated by the Almighty Creator to man.

To these observations it may be added,

4. That, as there is no evidence whatever of any writing being in existence before the giving of the law; and as then God is said to have written the decalogue with his *own finger* (Exod. xxxi. 18.); and further, as after this time *writing* is always mentioned in the sacred volume (unquestionably the most antient in the world);—it may with still more certainty be concluded that the Father of Lights himself first taught the use of alphabetical characters to man². And

¹ *Supra*, pp. 78, 79.

² This last point is well argued by Dr. A. Clarke, in an

5. That the Samaritan or old Hebrew was the original alphabet; which being communicated to the neighbouring nations, particularly the Phenicians, has from them been denominated the Phenician alphabet; and that this, being first carried into Greece¹, is the parent of the letters now generally used.

SECTION II.

Hieroglyphics—Different Kinds of Writing—Manuscripts.

LANGUAGE being of divine original, and communicated to Adam before the Fall,—it seems not unreasonable to suppose that he was taught to compound sounds so as to form it, by a perfect

Essay on the Origin of Language, in the “Bibliographical Miscellany,” vol. ii. pp. 1—6.

¹ Mr. Alwood has, in his *Literary Antiquities of Greece*, announced an hypothesis, that the language of the Amorites, or rather of the Cuthites, who are supposed to be descended from them, was the parent of the Greek language, having undergone numerous migrations and changes. In a “Memoir on the Primæval Language of Mankind,” (*Transactions of the Royal Irish Academy*, vol. x.) the late Mr. Kirwan endeavours to prove Greek to be the primæval language. Independently, however, of the generally received opinion, the similarity of the ancient Greek characters to those of the Phenicians is an additional confirmation of the arguments above maintained.

and philosophical theory: and it may be difficult to imagine a more rational and easy one than the different variations and modifications of a small number of simple sounds, most naturally adapted to the organs of speech. The making of specific marks for these to assist his memory, or to instruct his descendants in them afterwards, would soon produce the art of writing, if that and speech were not taught him together. But the compounding of simple sounds in order to make words, and the joining together of marks for those sounds, are two acts so nearly related, that, when God brought to Adam the creatures to be named, it seems reasonable to think (even if we had not the subsequent testimony of Moses to the divine original of alphabetic writing) that the first parent of mankind was taught the one to assist his memory in the other.

§ 1. ORIGIN OF HIEROGLYPHICS.—If then (as appears highly probable) the marks for elementary sounds were originally expressive also of significant words, the people who lived at or immediately after the confusion of tongues, finding that these marks no longer expressed such words, might substitute *pictures* to represent their objects;—judging the latter to be more expressive than arbitrary marks, which no longer retained their pristine signification. Hence would soon arise the *hieroglyphic* and *symbolic* methods of

expressing ideas; while those whose language had undergone the least alteration, might more readily be able to order the elementary marks, and discover what variations were necessary, so as to make them still as useful as they were before; and might in time teach their neighbours to do the same. For, notwithstanding the confusion of tongues, when the method of writing was found out for one language, the application of it to another would soon be apparent, especially where the tongues continued to preserve a great affinity, as is supposed to have been the case with the Syrians, Phenicians, Egyptians, and other neighbouring people. The intercourse, too, of intelligent men of different nations with these, would spread it to others where the affinity of language was less: and they would, doubtless, add other marks for sounds peculiar to themselves, and alter or omit those used by others, just as they found it most convenient. Hence it seems that all the diversity in languages seen at this day, may readily be accounted for.

§ 2. EGYPTIAN HIEROGLYPHICS. — Many attempts have been made to explain the hieroglyphic writing of the Egyptians, from the few specimens, and the imperfect accounts that remain from antiquity. The opinion most generally embraced by antient and modern writers, concerning the origin and use of hieroglyphics,

is:—that they were invented by the Egyptian priests, in order to conceal the mysteries of religion and philosophy from the knowledge of the vulgar, which the initiated only could understand. According to this hypothesis, there were two kinds of writing in use among that people, the *hieroglyphic* and the *alphabetical*: the former were those symbolic characters inscribed by the first Hermes on pillars or tables of stone, and which were afterwards copied and interpreted by the priests. The latter method of writing was invented or adopted for the sake of explaining the hieroglyphic records, but was employed only by the priests, and for religious purposes: whence these characters were called sacerdotal or sacred¹. This opinion, however, has been controverted, with great learning and success, by the late bishop Warburton, who has shewn that this account is erroneous, and that (agreeably to the theory above developed) the first kind of hieroglyphics were mere pictures; because the most natural way of communicating our conceptions was by tracing out the images of things: and this is actually verified in the

¹ Clem. Alex. l. v. p. 555. Porphy. Vit. Pythag. p. 15. Enfield's Hist. of Philosophy, vol. i. p. 69. There was also a *third* kind of character, in use among the common people, called the *epistolary*. Dr. Shaw has collected together a mass of information on the symbolical learning of the Egyptians, in his Travels, vol. ii. part ii. c. 2. sect. 1. pp. 163, *et seq.* 8vo edit.

case of the Mexicans, whose only method of writing their laws and history was by this picture-writing¹. But the hieroglyphics, invented by the Egyptians, were an improvement on this rude and inconvenient essay towards writing: for they contrived to make them both pictures and characters². In after times they were made instrumental for the concealment of knowledge, particularly when the invention of letters had rendered their former purpose unnecessary. The following abstract of the learned bishop's reasonings and inductions will not be unacceptable to the inquisitive student.

As the communication of ideas by picture-writing would require the volumes to be of great bulk, the inconvenience attending this method would soon set the more ingenious and better civilized people upon contriving methods to abridge their characters: and of all the improvements of this kind, that invented by the Egyptians, and which was called *hieroglyphics*, was by far the most celebrated. By this contrivance that which among the Mexicans was only a simple painting, became in Egypt a pictured character.

In order to effect this improvement, they were obliged to proceed gradually:

¹ Concerning the Mexican writing, *vide* § 3. *infra*, p. 92.

² Warburton's *Works*, vol. iv. pp. 116, *et seq.*

1. *By making the principal circumstance of the subject stand for the whole.* Thus, when they would describe a *battle*, or two armies in array, they painted (as we learn from the hieroglyphics of Horapollo) two hands, one holding a shield, and the other a bow;—when a *tumult*, or popular insurrection, an armed man casting arrows;—when a *siege*, a scaling ladder;—*a man's two feet in water* signified a *juller*; and *smoke ascending upwards* denoted a *fire*. This, bishop Warburton observes, was of the utmost simplicity; and consequently we must suppose it to be the earliest way of turning painting into a hieroglyphic, that is, making it a picture character. This he terms the *curiologic hieroglyphic*.

2. The second and more artful method of contraction was, by *putting the instrument of the thing, whether real or metaphorical, for the thing itself.* Thus—an *eye*, eminently placed, was designed to represent God's *omniscience*;—an *eye and sceptre* denoted a *monarch*; a *sword*, their cruel *tyrant*, Ochus; and a *ship and pilot*, the *Governor* of the universe. The *moon* was sometimes represented by a *half-circle*, sometimes by a *cynocephalus*;—the overflowings of the *Nile*, sometimes by a *spreading water in heaven and earth*, sometimes by a *lion*. A *judge* was denoted, sometimes by a *man without hands, holding down his eyes*, to intimate the duty of being

unmoved by interest or pity, and sometimes by a *dog near a royal robe*: for they had a superstition that a dog, of all animals, was only privileged to see the gods.—This was the *tropical hieroglyphic*.

3. The third and still more artificial method of abridging picture-writing was, by *making one thing stand for or represent another, where their observations of nature or traditional superstitions led them to discover or imagine any analogy or resemblance*: and this was their *symbolic hieroglyphic*. Thus, the *universe* was designed by a *serpent in a circle*, whose variegated spots signified the stars;—the *sun-rise*, by the two eyes of a crocodile, because they seem to emerge from its head;—a *widow*, who never admits a second mate, by a *black pigeon*;—and a man who had borne his misfortunes with courage, and had at length surmounted them, was signified by the *hyæna*; because the skin of that animal used as a defence in battle, was supposed to make the wearer fearless and invulnerable. The more simple of these *symbols*, Warburton terms *tropical*; the more artificial, *enigmatical*.

The *proper or curiologic hieroglyphics* were employed to record openly and plainly the laws, policies, public morals, history, and all the civil affairs, of the Egyptians. This is evident from their obelisks, which were full of hieroglyphic

characters, designed to record singular events, memorable actions, and new inventions; and also from the celebrated inscription on the temple of Minerva at Saïs, where an infant, an old man, a hawk, a fish, and a river-horse expressed this moral sentence: "All you who come into the world, and go out of it, know this, that the Gods hate impudence."

The *tropical hieroglyphics*, however, which were employed to divulge, gradually produced symbols which were designed to secrete or conceal. Thus, Egypt was sometimes expressed by the crocodile, sometimes by a burning heart with a censer upon it: where the simplicity of the first representation and the abstruseness of the latter show, that the one was a tropical hieroglyphic for communication; and the other, a tropical symbol invented for secrecy. *Enigmatic Symbols* were afterwards formed by the assemblage of different things, or of their properties which were less known: and though they might have been intelligible at first, yet when the art of writing was afterwards known, the hieroglyphics were more generally disused. The people forgot their signification: while the priests, retaining and cultivating the knowledge of them because they were the repositories of their learning and history, at length applied them to the purpose of preserving the secrets of their re-

ligion; and, ultimately, these symbols led to the introduction and establishment of animal worship in Egypt.

§ 3. MEXICAN PICTURE-WRITING.—The first and most natural way of communicating thoughts by marks or figures, was (as already intimated) by tracing out the images of things. The Egyptians, we have seen, had advanced beyond this simple and inefficient mode of conveying ideas: but the earliest specimens of *picture-writing*, now extant, are those of the Mexicans. Previously however to noticing these, it may not be irrelevant to offer a few particulars relative to the *Quipos*.

The rudest species of visible communication now known is, the variously knotted cords of the Peruvians, called the *Quipos*. They have been represented by some authors as regular annals of the empire; but Dr. Robertson, with more probability, supposes them to have been a mere device for rendering calculation more expeditious and accurate: that, by the various colours different objects were denoted, and by each knot a distinct number. This account is rendered still more probable by the circumstance, that picture-writing was then used by the Peruvians; and, as the names of numbers must be denoted by arbitrary signs to render calculation at all extensive, this species of arbitrary sign might be

~~more~~ convenient for their rude arithmetic than any other.

When the inhabitants of the sea-shore sent ~~expresses~~ to Montezuma, the sovereign of Mexico, with news of the first appearance of the Spanish navy upon their coasts, the advices were delineated in large paintings upon white cotton cloths. On these were exactly painted the ships with all their rigging, the Spaniards with their arms, horses, and artillery, together with the number of men¹.

Joseph Acosta has given the following more particular account of this sort of painting: "One of our company of Jesus (says he), a man of much experience and discernment, assembled in the province of Mexico the antients of Tuscuco, Tulla, and Mexico; who, in a long conference held with him, shewed him their records, histories and calendars;—things very worthy of notice, as containing their figures and hieroglyphics, by which they painted their conceptions in the following manner. Things which have a bodily shape, were represented by their proper figures; and those which have none, by other significative characters: and thus they wrote or painted every thing which they had occasion

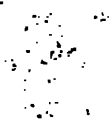
¹ Herrera's History of America, vol. ii. p. 198. Acosta's History of the Indies, lib. vi. chap. 10. Harris's Voyages, vol. ii. pp. 75, 76.

to express. For my own satisfaction (*Acosta* continues) I had the curiosity to inspect a pater-noster, an ave-Maria, the creed, and a general confession, written in this manner by the Indians :—To signify these words, *I a sinner confess myself*, they painted an Indian on his knees before a religious, in the act of one confessing ; and then for this, *to God Almighty*, they painted three faces adorned with crowns, representing the Trinity ; and, *to the glorious Virgin Mary*, they delineated the visage of our Lady, with half a body and the infant in her arms ; *to St. Peter and St. Paul*, two heads irradiated, together with the keys and sword, &c. In Peru, I have seen an Indian bring to the confessional a confession of all his sins written in the same way, by picture and characters ; portraying every one of the ten commandments after the same manner¹.”

A few specimens of this picture-writing have survived the destruction of the Mexican paintings, which the blind zeal of Juan de Zumarraga, the first bishop of Mexico, had condemned to the flames. One of the most curious specimens of this American writing has been published by Purchas² in sixty-six plates : it was made by a Mexican author, and deciphered by him in

¹ *Acosta*, lib. vi. cap. 7. *Warburton's Works*, vol. iv. p. 118. 8vo.

² *Purchas's Pilgr.* iii. 1065, 1066.



closed in a square border, the different figures of which represent so many years, and in the original are coloured blue. The pictures of men signify the ten lords or governors of the Mexican army, by whom Tenuch was elected king; and whose names are inscribed in the original pictures.

The facts contained in this picture-writing, reduced to narrative, are as follow :

In the year 1324, the Mexicans who were then called *Meciti*, first arrived at the place where the city of Mexico was afterwards erected: this spot was at that time under water, and covered with extensive bogs and bulrushes which they called *Tuli*, interspersed with great spots of dry ground, covered with shrubs. This spot was intersected by a stream of clear water running cross-wise (marked T in the plate); nearly in the centre of this stream, the Meciti found a high rock, on which grew a great tree or bush, *tunal*, in which a large eagle *candal* had her nest. Having explored all the neighbouring country, and finding none so commodious as this, they determined to make it their residence. They accordingly settled there, and erected a strong city or place of defence, embanked against the waters, which was called Tenultitlan from the Tunal growing out of the rock¹.

¹ Tenuchtitlan, in the Castilian dialect means, Tunal growing upon a rock.

The army of the Meciti was under the command of ten chieftains, who elected Tenuch their sovereign, by whom the other chieftains were constituted captains and governors.

After they had resided here some years, the people multiplied and were called Mexicans, and their city, Mexico: and, becoming powerful, they invaded the two neighbouring towns of Colhuacan and Tenaincan, which yielded to their arms. These transactions occupied the reign of Tenuch, as represented in the picture.

It only remains to add, that each space or partition in the margin denotes a year: such partitions, as exhibit a branch with a foot like a flower, signify bitter and unfortunate years; which the Mexicans had and dreaded, observing that their ancestors from time immemorial had warned them that such years as befell every fifty-second year were unfortunate, inundations, eclipses of the sun, and earthquakes generally taking place in them. In these years they offered numerous sacrifices to their deities, professing repentance, and abstaining from all vices against the very day and hour of such a year: on which day they usually extinguished all their lights and fires, till it was past; and on the following day they kindled new lights, which were furnished to them out of a mountain by a

priest. All these spaces are blue in the **original picture**¹.

§ 4. PICTURE-WRITING OF THE NORTH AMERICAN INDIANS.—Less advanced in the arts of **civilized** life than the Mexicans, the North American **In-**dians have recourse to a still more simple form of picture-writing, for the recording of past events, and the communication of their ideas to their distant friends. According to Charlevoix, Lafitau, and other travellers, when they went to war, they painted some trees with the figures of warriors, often of the exact number of the party². Further, when they are on their excursions, and either intend to proceed or have been on any remarkable enterprise, they peel the bark from the trees which lie in their way, in order to give intelligence to succeeding parties of the path they must take, to overtake them³.

The following instance will convey a more accurate idea, than any mere description of the picture-writing of the aboriginal inhabitants of North America.

When Captain Carver was travelling from the

¹ Purchas's Pilgrims, vol. iii. pp. 1067, 1068.

² Astle on Writing, p. 6.—See also La Hontan's Travels in North America, vol. ii. p. 86. Mr. Bray has communicated an interesting paper on the American picture-writing, in the sixth vol. of the *Archæologia*.

³ Carver's Travels in North America, p. 417.

Mississippi to Lake Superior, under the guidance of a Chipéway chief, the latter, apprehensive lest they should fall in with some parties of the Naudowessies (with whom his nation were perpetually at war) adopted the following expedient, for the prevention of mischief.

He peeled the bark from a large tree near the entrance of the Chipéway River ; and with wood coal mixed with bear's grease, their usual substitute for ink, made in an uncouth but expressive manner the figure of the town of the Attagumies. He then formed to the left, a man dressed in skins, by which he intended to represent a Naudowessie, with a line drawn from his mouth to that of a deer, the symbol of the Chipéways. After this, he depicted, still further to the left, a canoe, as proceeding up the river, in which he placed a man sitting, with a hat on : this figure represented an Englishman (Captain Carver), whose French servant was drawn with a handkerchief tied round his head, and rowing the canoe ; to these he added several other significant emblems, among which was the pipe of peace painted on the prow of the canoe.

The meaning, which the Chipéway chief intended to convey to the Naudowessies, (who would readily comprehend it,) was, that one of the Chipéway chiefs had received a speech from

some Naudowessie chiefs at the town of the Attagaumies, desiring them to conduct the Englishman, who had lately been among them, up the Chipéway River; and that they thereby required that the Chipéway, notwithstanding he was an avowed enemy, should not be molested by them on his passage, as he had the care of a person whom they esteemed as one of their nation¹.

Mr. Thomas, in his interesting "History of Printing in America," has given a copy of an Indian Gazette, taken many years since by a French officer, and an explanation of the same, both of which were communicated to Mr. T. upwards of forty years ago. It relates to an expedition of a body of Canadian warriors; who, soon after the settlement of this part of America, took up the hatchet against a hostile tribe that adhered to the English. As this Indian Gazette presents a curious specimen of Picture Writing, the reader may not be displeased to find it annexed.

¹ Carver's Travels in North America, pp. 418, 419.

EXPLANATION
OF THE
INDIAN GAZETTE,
GIVING AN ACCOUNT OF ONE OF THEIR EXPEDITIONS.

•• The following Divisions explain those on the Engraving, as referred to by the Numbers.



1. Each of these figures represents the number ten. They all signify, that 18 times 10, or 180 American Indians took up the hatchet, or declared war, in favour of the French; which is represented by the hatchet, placed over the arms of France.

3. They went by water, signified by the canoe. The number of huts, such as they raise to pass the night in, shews they were 21 days on their passage.

5. When they arrived near the habitations of their enemies, at sunrise, shewn by the sun being to the eastward of them, beginning (as they think) its daily course. There they lay in wait three days, represented by the hand pointing and by three huts.

7. They killed with the club eleven of their enemies, and took five prisoners. The former are indicated by the club and the eleven heads; the latter, by the figures on the little pedestals.

9. The heads of the arrows, pointing opposite ways, represent the battle.

2. They departed from Montreal, — represented by the bird just taking wing from the top of a mountain. The Moon and the Buck shew the time to have been in the first quarter of the buck-moon, answering to July.

4. They then went ashore, and travelled seven days by land, represented by the foot, and the seven huts.

6. After which they surprised their enemies, in number 12 times 10, or 120. The man asleep shews how they surprised them; and the hole in the top of the building is supposed to signify that they broke into some of their habitations after that manner.

8. They lost nine of their own men in the action, represented by the nine heads within the bow, which is the emblem of honour among the Americans; but they had none taken prisoners, (a circumstance to which they attach great importance) shewn by all the pedestals being empty.

10. The heads of the arrows, all pointing one way, signify the flight of the enemy.

§ 5. PICTURE-WRITING OF OTHER NATIONS.— Similar characters were also found by Stahlenberg on the rocks in Siberia; and the same kind of picture-writing was used by the inhabitants of the Sandwich Islands, visited by Captain Cook, in 1779¹. The Greenlanders, when first visited by the Moravian Missionaries, had characters resembling those above described.— Crantz relates, that they marked with a coal upon a piece of skin the wares, which they had occasion to borrow, and the days their promissory notes had to run, with so many scores: he adds that they faithfully honoured these drafts, wondering only that the wise Europeans could not understand their hieroglyphics, as well as they comprehended their own scratches².

§ 6. HIEROGLYPHICS OF THE CHINESE.—It has already been observed, that the antient Egyptian hieroglyphic was an improvement on a still more antient manner, resembling the rude picture-writing of the Mexicans; and we have seen that it joined contracted and arbitrarily instituted marks to images. The Chinese threw out the images, and have retained only the marks, which they have increased to a prodigious number.

¹ Astle on Writing, p. 6. Warburton's Works, vol. iv. p. 119. The bishop has given plates from Laitau and Stahlenberg, of the American and Siberian pictures.

² Hist. of Greenland, vol. i. p. 230.

In the commencement of their monarchy, the Chinese communicated their ideas by drawing on paper the natural images of the things they wished to express. Thus, to denote a bird; they painted the figure of one; several trees indicated a forest; a circle, the sun; a crescent, the moon; and wavy lines, the water. But this method of explaining their thoughts being not only imperfect, but also very inconvenient, they gradually changed their old manner of writing: they composed more simple figures, and invented many others to express such things as do not come within the verge of the senses.

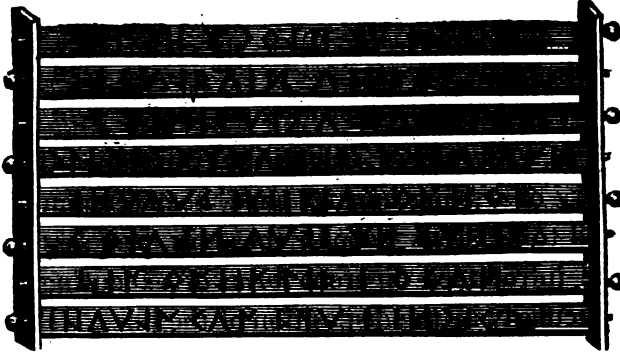
Nevertheless, these more modern characters are truly hieroglyphical; *first*, because they consist of simple letters which retain the signification of the primitive characters: Formerly, for instance, they represented the sun by a circle, ☉ and called it *Ge*; now they represent it by this figure ☽, which is also named *Ge*. *Secondly*, because human institution has affixed to these figures the same ideas, which the first symbols naturally represented; and every Chinese letter has its proper signification which it always preserves. *Tsai*, for instance, which signifies *misfortune, calamity*, is composed of the letter *Mien*, a house, and the letter *Ho*, fire; because it is the greatest misfortune to see one's house on fire. Hence it is evident, that the

Chinese characters are not simple letters like ours, which signify nothing by themselves, but so many hieroglyphics, which form images and represent thoughts¹.

§ 7. WRITING AMONG THE ANTIENT BRITONS.—The original manner of communicating ideas by letters, among the antient Britons, was, by cutting the letters upon sticks, which were most commonly squared, and sometimes formed into three sides; consequently a single stick contained either four or three lines. (See Ezek. xxxvii. 16.) The squares were used for general subjects, and for stanzas of four lines in poetry; the trilateral ones were adapted to triades, and for a peculiar kind of antient metre, called *Triban* or triplet, and *Englyn Mitwyr*, or the warrior's verse.

Several sticks with writing upon them were put together, forming a kind of frame, which was called *Peithynen* or Elucidator; and was so conducted that each stick might be turned for the facility of reading, the end of each running out alternately on both sides of the frame. The subjoined cut

¹ P. Magalhaen's Hist. of China, chap. 4. p. 69. Duhalde, Descr. de la Chine, tom. II. p. 227. Warburton's Works, vol. iv. pp. 124. 125.



is an engraved specimen of antient British writing, copied by the indulgence of Dr. Fry, from his elegant work intituled *Pantographia*¹. The following is a literal reading in the modern orthography of Wales, with a correct translation :—

“ Aryv y doeth yw pwyll :
 Bid ezain alltud :
 Cynnewid a haelion :
 Diengid rhywan eid rhygadarn :
 Enwawg meiciad o’ i voc :
 Goiaen awel yn nghyving :
 Hir oreistez i ogan :
 Llawer car byw i Indeg.”

TRANSLATION.

“ The weapon of the wise is reason :
 Let the exile be moving :
 Commerce with generous ones :
 Let the very feeble run away ; let the very powerful proceed :

¹ Fry’s *Pantographia*, p. 307. The subject of Bardic symbols or hieroglyphics is discussed at considerable length in the 4th, 5th, and following sections of Mr. Davies’s “*Celtic Researches*.”

The swineherd is proud of his swine :
 A gale is almost ice in a narrow place :
 Long penance to slander :
 The frail Indeg has many living relations.”

§ 8. DIFFERENT FORMS OF WRITING.—The theory of writing having once been communicated to different people, these in progress of time introduced different *forms* of executing it, particularly in the disposition of the lines. Pausanias¹ has mentioned *circular* writing on a quoit of Iphitus, which was used by the Eleans for the purpose of announcing a respite to the Olympic Games; but, as this kind of writing does not appear to have been adopted by any people generally, the various species of writing may be reduced to two classes, *perpendicular*, and *horizontal*.

The Chinese, Tunquinese and Japanese write *perpendicularly* from the top to the bottom; and the Mexicans write from the bottom to the top. Three kinds of *horizontal writing* may be distinguished. 1. From *right to left*, as the Hebrew, Chaldean, Samaritan, Syrian, Turkish, Persian, Arabic, Tartar, &c. &c. 2. From *left to right*, as in the Armenian, Birman, Ethiopic, Georgian, Greek, Roman, Servian, Sclavonic, and all the European writings. And 3. From left to right, for the first line, and from right to

¹ L. 5. c. 25.

left in the second line, and so on: this method was in use among the antient Greeks, by whom it was called *Boustrophedon*¹; it is said to have been disused about 457 years before the Christian æra. The most perfect specimen extant of *Boustrophedon* writing, is the *Sigean Inscription*, discovered in the Troad by Consul Sherard, and published by Dr. Chishull with an elaborate commentary.

GREEK MANUSCRIPTS were usually written in capital letters till the seventh century, and mostly without any divisions of words: Capitals were in general use till the eighth century; and some so late as the ninth, but there is a striking difference in the forms of the letters after the seventh century. Great alterations took place in the mode of Greek writing, in the eighth, ninth, and tenth centuries: towards the close of the tenth century, small letters were generally adopted; and Greek manuscripts, written in and since the eleventh century, are in small letters, and greatly resemble each other, though some few exceptions occur to the contrary. Flourished letters rarely occur in Greek MSS. of the thirteenth, fourteenth, and fifteenth centuries². The annexed engraving will convey to

¹ See p. 36, *supra*.

² Astle on Writing, pp. 70—74. Mr. A. has given several specimens of Greek MSS. of different centuries. The very

the student a pretty accurate idea of the Greek manuscripts of the twelfth and thirteenth centuries: it is a fac-simile of part of the first chapter of St. John's Gospel, from the Codex Ebnerianus, a very valuable MS. of the New Testament, which has only been partially collated by different critics. This manuscript bears the date of 1391¹.

In the antient Greek MSS. the Scribes frequently terminated the periods of a discourse, instead of any other division, by lines; and these divisions were, in Latin, called *versus*, from *vertendo*; for which reason these lines are still more properly named *versus*, than *lineæ*. At the end of a work they added the number of verses, of which it consisted, in order that the copies might be collated with the greater facility: and in this sense we are to understand Trebonius, when he says, that the Pandects contain 150,000 *pæne versuum*. These *codices* or MSS. were likewise *vel probæ vel deterioris notæ*, more or less perfect, not only with regard to the calligraphy or beauty of the character, but also to the correction of the Text.

valuable Dictionnaire Raisonné de Diplomatique of Dom De Vaines is illustrated with numerous plates of antient writing, of almost every age and nation.

¹ See a description of the Codex Ebnerianus in the Appendix, No. VIII.

It is generally agreed, that the LATIN LETTERS are derived from the Greeks. The most antient manuscripts were in capitals: and characters of this kind were in general use for records, &c. from the earliest times to the middle of the fifth century; though smaller characters were occasionally used, for ordinary subjects which required dispatch.

Some Latin MSS. are written in *Uncial Letters*, which are *large* and *round*, while capitals are square. Mr. Astle conjectures the words *Literæ Unciales*, (uncial letters) to be mistaken by ignorant monks and schoolmen for *Literæ Initiales*, the large letters generally used for the titles and heads of chapters.

Uncial writing began to be adopted about the middle of the fifth century: and, as it required little ingenuity and much patience, it was in barbarous times preferred to the running hand. From the close of the sixth, to the middle of the eighth century, uncial writing generally prevailed, except among men of business, whose various transactions required dispatch.

In the sixth, seventh, and eighth centuries, many MSS. were written, in various parts of Europe, in characters which approach nearer to small letters than those last described, and which have thence been called *Demi-Uncials*. This form of writing was discontinued in the ninth

century, and was succeeded by the *small letters*, which were employed with many variations till the invention of printing. They bear a close resemblance to the small characters, which our printers term *Roman*; and were occasionally used, before the subversion of the Roman empire, in affairs of business. Afterwards, they were adopted by all the nations of Europe under different forms, according to their respective taste and genius; small letters were generally used in the ninth century¹.

The *Gothic character* or writing is, in the main, the same with the Roman; except that it is very full of angles, turns, and bendings, especially in the beginning and ending of each letter. The Gothic alphabet was first composed by Ulphilas, bishop of the Goths, who flourished towards the close of the fourth century, and translated the Bible into the Gothic language. Being versed in the Greek, he borrowed some characters from it; united them with those of his native tongue; and thus formed a new alphabet of twenty-six letters, disposed in a new order, and to which he gave new denominations.

In England, the MSS. of the earlier times are far superior, in beauty and distinctness, to

¹ Astle on Writing, pp. 77—85.

those of the middle and more recent ages¹. Thus, the records of the Saxon æra, whether written in Saxon or Latin, are infinitely more plain and legible than those of later periods; they are also little obscured with abbreviations, which have created much doubt and ambiguity in after-ages, particularly in that valuable record, Domesday Book.

The characters, which were introduced into this country by William I. were at that time called Lombardic; but soon afterwards they acquired the appellation of *Norman characters*, and were generally used from that time until the reign of Edward III. The Norman character is smaller than the Saxon, and became so minute in the reigns of Richard I. and John, as to be scarcely legible: many abbreviations were likewise used, which increased the difficulty of reading this character. In the reign of Richard II. variations took place in handwritings of records and law proceedings: the characters, used from that time to the reign of king Henry VIII. are those called *Set-Chancery* and *Common Chancery*, and some of the letters called *Court-Hand*. The Chancery letters were used

¹ Of the gradual decline in the manner of writing, from the 6th to the 16th century, some idea may be formed by inspecting the specimens, given by Mr. Casley in the sixteen plates at the end of his Catalogue of the Royal Library of Manuscripts.

for all the records, which passed the Great Seal; the court-hand was employed in the Courts of King's Bench and Common Pleas, for fines and other legal instruments. These latter characters came into general use about the middle of the sixteenth century, and continued till the beginning of the reign of George II. when they were entirely disused: they were originally the Lombardic or Norman, but corrupted and deformed to so great a degree, that they bore very little resemblance to their prototypes. The common text hand, or ingrossing characters, were founded on and succeeded to the court and chancery hands: these are still in general use, in the profession of the law, but they are become almost unintelligible, except to practitioners¹.

§ 9. CODEX RESCRIPTUS.—A *Codex Rescriptus* is a parchment, from which the original writing has been partially or totally erased, and on which a new work has been written in its stead. Before the invention of paper, the great scarcity of parchment in different places, induced many persons to obliterate the works of antient writers, in order to transcribe their own or those of some other favourite author in their place: hence, doubtless, the works of many eminent writers have perished, and particularly those of the

¹ First Report on Public Records, pp. 496—499.

greatest antiquity ; for such, as were comparatively recent, were transcribed, to satisfy the immediate demand ; while those, which were already dim with age, were erased¹.

It was for a long time thought, that this destructive practice was confined to the eleventh, twelfth, thirteenth, and fourteenth centuries, and that it chiefly prevailed among the Greeks : it must in fact be considered as the consequence of the barbarism which overspread those dark ages of ignorance ; but this destructive operation was likewise practised by the Latins, and is also of a more remote date than has usually been supposed.

In general, a Codex Rescriptus is easily known, as it rarely happens that the former writing is so completely erased, as not to exhibit some traces : in a few instances, *both* writings are legible. Montfaucon found a MS. in the Colbert Library, which had been written about the eighth century, and originally contained the works of St. Dionysius: new matter had been written over it, three or four centuries afterwards, and both continued legible². Muratori saw in the Am-

¹ Peignot, *Essai sur l'Histoire de Parchemin*, p. 83, *et seq.*

² *Palæogr.* pp. 231, 233. The greater part of the MSS. on parchment, which Montfaucon had seen, he affirms, were written on parchment, from which some former treatise had

broasian Library a MS. comprising the works of the venerable Bede, the writing of which was from eight to nine hundred years old, and which had been substituted for another upwards of a thousand years old. Notwithstanding the efforts which had been made to erase the latter, some phrases could be deciphered, which indicated it to be an antient pontifical¹.

A similar MS. was discovered by Mabillon, in the library (since destroyed by fire) at St. Germain-des-Prez: it contained St. Jerome's catalogue of illustrious men, with a continuation by Gennadius. Mabillon, who has given an engraving of it in the fifth book of his *treatise de Re Diplomatica*, assigns it to the *seventh century*; but the learned authors of the *Nouvelle Diplomatique* have remarked that this MS. had previously been in part rewritten². They distinguish the characters of three sorts of more antient manuscripts: the first is, in demi-uncial writing, apparently of the *sixth century*, containing some laws of the Visigoths; the second is probably of the *fifth century*, being for the most part written in uncial or capital letters; a few words only can be made out, from which it

been erased, except in those of a very antient date. Mem. de l'Acad. des Inscript. tom. ix. p. 325.

¹ Muratori, Antiq. Ital. tom. iii. Dissert. 43. col. 838, 839.

² Peignot, Essai sur Parchemin, p. 65.

is difficult to form phrases ; it seems however to be an eulogium of the person to whom the discourse is addressed. The third is a Roman running hand-writing, still more difficult to decipher than the preceding, the characters being defaced ; it is supposed to be part of some charter.

Another valuable manuscript of this kind, is preserved in the Imperial Library at Paris, and known by the appellation of the *Codex Ephremiti*: it is written on vellum and of high antiquity. The first part of it contains several Greek works of Ephrem the Syrian, written over some more antient writings which had been erased, though the traces of them are still visible and in most places legible. These more antient writings are the whole Greek Bible. The New Testament in this MS., beside numerous chasms, is in many places illegible. Wetstein contends that it was written before the year 542, though his arguments are not conclusive in the estimation of Biblical critics¹.

A very valuable Codex Rescriptus was discovered about 25 years since by the Rev. Dr. Barret, senior fellow of Trinity College, Dublin. While he was examining different books in the

¹ Marsh's *Michaelis*, vol. ii. part 1. pp. 258—260, and part 2. (notes) p. 732. *Nov. Test. Wetstenii*, tom. i. prolegom. pp. 27, 28. *Griesbach. Symb. Crit.* tom. i. pp. 1, *et seq.*

library of that College, he accidentally met with a very antient Greek MS., on certain leaves of which he observed a two-fold writing, one antient and the other comparatively recent transcribed over the former. The original writing on these leaves had been greatly defaced, either by the injuries of time, or by art; on close examination he found, that this antient writing consisted of the three following fragments:—the Prophet Isaiah, the Evangelist Saint Matthew, and certain orations of Gregory Nazianzen. The fragment, containing St. Matthew's Gospel, Dr. Barrett carefully transcribed; and the whole has been accurately engraved in fac-simile by the order and at the expense of the University, thus presenting to the reader a perfect resemblance of the original¹.

Of the *original* writing, which Dr. B. calls the *Codex Vetus*, only sixty-four leaves remain,

¹ The title of this interesting (and comparatively little known) publication is as follows. *Evangelium Secundum Matthæum ex Codice Rescripto in Bibliotheca Collegii SSæ. Trinitatis juxta Dublin: Descriptum Opera et Studio Johannis Barrett, S. T. P. Soc. Sen. Trin. Coll. Dublin. Cui adjungitur Appendix Collationem Codicis Montefortiani complectens. Dublini Ædibus Academicis excudebat R. E. Mercier, Academiæ Typographus, 1801, 4to.* The Prolegomena occupy 52 pages; the fac-simile plates, 64, which are also exhibited in as many pages, in the common Greek type; and the collection of the Codex Montefortianus fills 35 pages.

in a very mutilated state : each page contains one column ; and the columns in general consist of twenty-one lines, and sometimes (though rarely) of twenty-two or twenty-three ; the lines are nearly of equal lengths, and consist, ordinarily, of eighteen or twenty square letters, written on vellum originally of a *purple* colour. From these two circumstances, as well as from the division of the text, the orthography, mode of pointing, abbreviations, and from some other considerations, Dr. Barrett with great probability fixes its age to the *sixth* century. The *Codex Recens* or later writing (which contains several Tracts of some Greek Fathers,) he attributes to a scribe of the thirteenth century; about which time, as already intimated; it became a general practice to erase antient writings and insert others in their place¹.

This custom became so common, in Germany, in the fourteenth and fifteenth centuries, that at length it was perceived how dangerous it might prove, to employ erased parchments for public instruments, and efficacious measures were adopted to prevent this disorder. Accordingly, the patents, by which the emperors of Germany elevated individuals to the rank of a count, with power to create imperial notaries, usually contained the following clause:—“on

¹ Dr. Barrett's *Prolegomena*, pp. 2—9.

condition, that they should not make use of old and erased parchment, but that it should be *virgin* (i. e. made of abortive skins) and quite new¹."

§ 10. ABBREVIATIONS.—The scarcity and dear-ness of parchment were doubtless the reasons that induced so many copyists to destroy anti-ent writings for the purpose of substituting new ones in their place; but these very reasons have been the cause of another abuse, concerning which it may not be irrelevant to offer a few re-marks, we mean that of *abbreviations*. Under the pretext of rendering MSS. less voluminous and consequently cheaper, of economising the time of the scribes employed to copy them, and lastly for the purpose of comprising many volumes in one, the Abbreviations became mul-tiplied to such an extent, especially in the mid-dle ages, that it requires no common ability to read the manuscripts.

Abbreviations were very early introduced into MSS. : the antients, in their most common con-tractions, preserved part of the letters of a word, and substituted certain signs for the suppressed characters². Thus, in the third and fourth cen-

¹ Maffei, Ist. Diplom. p. 69.

² Of this description were the Tyronian Notes, so called from Tyro, the freed-man and intimate friend of Cicero; he improved on the invention of Ennius, who had contrived eleven hundred notes. To these Tyro added a great number, and reduced the system to order, which was afterwards im-

turies, they wrote *Dms* or *Dns* for *Dominus*: in the most antient MSS. the letter *m* or *n* at the end of a line is designated by a small horizontal bar—, or by an *s* placed sideways *∞*, either single or accompanied by two points, one above and the other below. In MSS. of the sixth or seventh century the word *est* is rendered by this character ÷. The letter *n*, serving as an abbreviation for an unknown person, has, according to Mabillon, been in use since the ninth century; when *ille* was abbreviated by *ill*. Abbreviations were frequent in the seventh century, still more common in the eighth and ninth centuries: in the tenth, they were multiplied to infinity; in MSS. of the eleventh, scarcely a line occurs, in which there are not from eight to ten

proved and augmented by others, and particularly by Seneca the philosopher. This kind of writing had before been successfully practised by the Greeks, to whom it was communicated by Xenophon, if he were not the inventor of the art. The Tyronian notes were very generally used in the West; they were taught in the public schools, and were employed for transcribing manuscripts. They fell into disuse, in France toward the close of the ninth century, and in Germany at the end of the tenth century. After that time, scarcely any vestige of them appears in MSS. except the abbreviation of *et* by 7, and of *us* by 9 at the end of words. The modern art of short-hand is an improvement on the Tyronian notes. Pitisci Lexicon, tom. ii. p. 277. Lambinet, Recherches, pp. 32—35. Peignot, Dict. tom. ii. pp. 297—299.

abbreviations;—at length, in the twelfth, thirteenth¹, fourteenth, and fifteenth centuries, they were carried to excess; writings of every description were filled with them. The charters and other instruments of our country, of this period, cannot be understood without great difficulty, from the immense number of contractions; and in France, Philip the Fair issued an *ordonnance* in 1304, for banishing from the minutes of notaries, and especially from legal instruments, all abbreviations which rendered them liable to be misunderstood, and falsified. The parliament, by an *arrêt* of 1552, in like manner banished from the royal letters, the *et cætera* which till that time had been in use, and which had also been greatly abused².

These contractions, however, were not confined to manuscripts: in editions printed in the fifteenth century, the abbreviations are so numerous and so complex, as not only to render the reading fatiguing, but also the sense unintelligible. M. Peignot has given the following specimen from the *Logic* of Okham, printed at

¹ Of the abbreviations in Greek MSS. of the 12th and 13th centuries, the fac-simile of the Codex Ebnerianus will afford a tolerable idea. See the engraving opposite page 107, *supra*.

² De Vaines, *Dict. de Diplomatique*, tom. i. pp. 28—30, which contains a very useful alphabetical table of the chief abbreviations occurring in antient MSS. and deeds, pp. 31—38.

Paris in 1488, in folio, scarcely one word of which is unabbreviated.

Sic hic e fal sm qd ad simplr a e pducibile a Deo g a e. et silr hic a n e g a n e pducibile a Do.

This species of Hieroglyphic signifies :

Sicut hic est fallacia secundum quid ad simpliciter. A est producibile a Deo, et similiter hic : A non est, ergo A non est producibile à Deo¹.

Towards the close of the fifteenth century, these abbreviations were multiplied to such an extent, that it became necessary to procure works, for rendering them easy to be understood, and perused. Of this description are, the treatise by John Petit, entitled *Modus legendi abbreviaturas in utroque Jure. Paris, 1498, 8vo. Ars legendi abbreviaturas;—Modus legendi abbreviaturas, passim in jur. tam civil. quam pontifical. occurrent. Cologne, 1582, &c. &c.* Several modern writers have well illustrated the abbreviations used by the Romans, as well as in MSS. Charters and other Instruments; of whose labours some account will be found in a subsequent part of this work.

§ 11. AGE OF MSS.—It is difficult to fix the age of antient manuscripts, which are justly considered as the brightest ornaments of a Library,

¹ Peignot, Essai sur Parchemin, p. 89.

and in fact constitute its principal wealth. In order to ascertain the age of MSS. it is absolutely requisite not only to have *seen* many; but the bibliographer ought also to be acquainted with the different styles of national writing in different ages, (the knowledge of whose rise, progress and decay, is of the greatest utility for determining the age of manuscripts, prior to the thirteenth century;)—further he should be familiar with the antient and modern languages in which they are written,—the material used for writing them,—the metallic or other liquors employed,—the beauty of the writing,—the miniatures, vignettes, and curious paintings with which they are ornamented,—and with their covering or envelope, the material of which, as well as the antique bas-reliefs that frequently decorate it, are alike interesting to the antiquary and the artist.

It is also necessary that the bibliographer should be able to distinguish genuine MSS. from such as are apocryphal. The Bibliotheca Parisina (No. 568.) contains a MS. *Relation de l'isle imaginaire et histoire de la princesse Pamphlogonie*, par Mademoiselle, fille de Gaston, Monsieur, (brother of Louis XIII.) It is dated 1659 and is so exactly copied that it might pass for the author's hand-writing: the work is a Secret History of the Court of Louis XIII. the characters

of which are described under fictitious names. M. Achard relates that he saw, among the books of the celebrated Bibliographer, the Abbé Rive, a manuscript of the *Speculum humanæ salvationis*; which he had caused to be copied by M. Lesclapart, and which bore so perfect a resemblance to a MS. of the 12th century, as to deceive some pretended connoisseurs. The paper however would be sufficient to indicate its age. Among these copyists, there have been some who possessed the art of imparting a certain air of antiquity to paper by *smoking* it; but this may be discovered by an attentive observer; in uncertain cases, water alone will be sufficient to detect the fraud. Let water be poured upon the suspected paper; if it be antient, it will not lose its blackish colour by this process; while that which has been artificially coloured, or blackened by smoke, will soon become white in the water and consequently shew that artifice has been employed¹.

A manuscript is valuable from its antiquity, from the subject of which it treats, and on account of its execution.

It is to be considered of a remote antiquity, when it is anterior to the twelfth century; although those of the twelfth, thirteenth, and

¹ Cours Élémentaire de Bibliographie, par M. Achard, tom. i. pp. 62, 63.

fourteenth centuries, are worthy of consideration, when in a good state of preservation.

There are some MSS. of a more recent date indeed, but which are almost of equal rarity with those of earlier times, from the very small number of copies made of them. Others are not less valuable, whatever their age may be, from the subject which they discuss, especially when they contain important discoveries relative to the arts and sciences, or to history, that have not been published; or when they are written either by the author himself, or are enriched with notes and corrections which are no where else to be found.

Lastly, the beauty of their execution imparts to MSS. a high value, whatever may be their subject-matter.

Various rules have been given, by which to ascertain the age of manuscripts: the more important of these it may not be irrelevant to subjoin, in addition to the hints already given.

1. In the most antient MSS. down to the eighth century, the words are not divided, and the lines are entire, without any intervals.

2. The full stop is omitted; and when it first began to be used, it was placed at the top of the letter, and not in the line.

3. Commas were not in general use, until the end of the tenth century.

4. Marks of interrogation, exclamation, and parenthesis, were not introduced until the fifteenth century.

5. The division of words, by means of short strokes or lines, inclined from right to left, was not invented until the thirteenth century.

6. Abbreviations are comparatively rare in MSS. anterior to the twelfth century; but (as already noticed) they became so exceedingly multiplied in the three following centuries, as to render the reading of MSS. almost impracticable.

7. The extreme whiteness, and great fineness of the vellum, indicate the antiquity of a MS. and its anteriority to the sixth century. When the skins roll up of themselves, or simply with the heat of the hand, it is a certain mark of their antiquity. Subsequently to the tenth century, the vellum has not been so thin, and does not roll up so readily.

8. Among the Latin manuscripts, all those may be considered as antient, which are prior to the year 800 and to the reign of Charlemagne: they are precious and of great rarity. Of equal value and rarity are such MSS. as exhibit only feeble traces of the metallic ink with which they were written; and those, of which the first two or three lines in each work, are in red characters, as the celebrated Florentine Virgil now in the Imperial Library at Paris, and the works of St.

Cyprian and St. Augustin, which were to be seen at the Abbey of St. Germain-des-Prez, before it was consumed by fire.

The age of MSS. which are written in the Old French or Latin languages, may be ascertained by the number of barbarous words they contain: the same rule will also apply to Anglo-Saxon, Anglo-Norman, and Old English Manuscripts; but it does not hold with regard to Greek and Hebrew MSS. The most antient of the latter are the best written, and unaccompanied by the Masoretic notes: the absence of critical interpolations and corrections, as well as of divisions in the Pentateuch, are equally marks of their antiquity. Both Greek and Hebrew MSS. which are really antient, are destitute of chronological notes; any one indeed which has these, or which purports to be dated prior to the tenth century, is a suspected MS. The Hebrew manuscripts, written in Spain, are in square letters;—those of the Italian and French Jews are in characters, rather more rounded;—while those of the German Jews abound with points¹. In general, it may be remarked, that all manuscripts in the oriental and in the Greek languages, are of very great value, as well as those in Latin which are anterior to the invention of printing, and contain the works of the antient

¹ De Vaines, Dict. de Diplomatique, tom. ii. pp. 93, 94.

Roman Writers. These have not been transmitted to us, through the press, without many alterations, which are to be attributed either to the ignorance of the copyists or to the injuries inflicted by the consuming hand of time: hence, the text can be restored, and chasms can be supplied, only by diligently comparing different MSS. and by adopting those readings which approve themselves to be correct.

§ 12. ILLUMINATIONS.—Many ancient MSS. are ornamented with vignettes, miniatures, and other paintings, which are collectively termed *illuminations*¹; and which, as they for the most part retain their freshness, materially augment the value of such MSS. and are additionally useful; as illustrating the history, costume, civil and military arts and sciences, &c. of ancient nations. The art of illuminating MSS. was much practised by the Clergy, and even by some in the highest stations of the Church: it is particularly recorded of the famous Osmund, who was consecrated Bishop of Salisbury, A. D. 1076, that he did not disdain to appropriate some part of his time to the writing, binding and illumination of books². In the following

¹ The antiquity and duration of the practice of illuminating MSS. have already been stated. See Chap. I. Sect. II. pp. 68, 69, and note, *supra*.

² Henry's Hist. of Britain, vol. vi. p. 226.

centuries, this art was carried to a high degree of perfection.

The subjects of the illuminations were various, consisting of the figures of Kings and Queens, (of many of whom they are genuine portraits in miniature,) saints, beasts, birds, monsters, flowers, &c. which sometimes bore a relation to the contents of the page, though frequently these symbols were not very analogous. Such embellishments were costly; but for those, who could not meet the expense of the most superb ornaments, others were made of inferior degrees, to correspond with the ability of the purchaser. When the general delicacy, taste, and splendour, of their execution are attentively considered, we are astonished at the time and patience¹ which such works must have required.

Illuminated MSS. form a valuable part of the riches preserved in the principal libraries of Europe: in England, the Royal, Cottonian and

¹ Fifty years were sometimes employed to produce a single volume; an evidence of which occurred at the sale of the late Sir Wm. Burrell's books in 1796. Among these was a MS. Bible beautifully written on vellum, and illuminated, which had taken the writer half a century to execute. The writer, GUIDO DE JARS, began it in his fortieth year, and did not finish it until he had accomplished his ninetieth, A. D. 1294, in the reign of Philip the Fair, as appeared by the writer's own autograph, in the front of the book. Lemoine's *Typographical Antiquities*, p. i.

Harleian Libraries, as well as those of the two Universities;—at Rome, the Vatican;—the Imperial at Paris;—at Vienna, the Imperial;—St. Mark's, at Venice;—the Escorial, in Spain;—and many other libraries possess superb specimens of Greek and Roman art, some of which are incidentally noticed in the subsequent part of the present work¹.

The limits assigned to this volume will only admit a brief notice of two or three of the most splendid MSS. in the Public Libraries of England.

Not to mention the numerous superb missals and other costly productions of human ingenuity, —the Harleian Library, among other precious relics of antiquity, contains a noble exemplar of the four Gospels, (No. 2788.) in capital letters of gold; which, in point of antiquity (being written in the eighth century) as well as elegance, greatly surpasses the Codex Aureus of the Escorial Library. In many respects this MS. may be said to vie with any other now extant: every page of the sacred text, consisting of two separate columns, is inclosed within a broad and

¹ The fac-simile of the Codex Ebnerianus, given above (see page 107) will convey an idea of the manner in which the beginnings of MSS. were executed. For a brief notice of this manuscript (which is superbly illuminated) see the Appendix, No. VIII.

beautifully illuminated border. The pictures of the Evangelists, with their symbolic animals, are curiously painted in the front of their respective Gospels: and the initial letter of each Gospel is richly illuminated, and so large as to fill an entire page. To the whole are prefixed the prologues, arguments and breviaries, and two letters to Damasus, by St. Jerome,—the canons of Eusebius, his letters to Carpian, and a capitular of the Gospels for the course of the year, all of them written in small golden characters.

In the same noble collection also is deposited a MS. (No. 2821.) of the four Gospels, of St. Jerome's version, together with his prologues, &c. the canons of Eusebius, and the parallel passages, written in letters of gold in the tenth century. This manuscript is superbly illuminated, and adorned with pictures of the following subjects, painted on purple grounds, viz. before the Gospel of St. Matthew, in a circle, are first the representation of our Saviour, sitting as enthroned, holding in his right hand the book of the New Law, that of the Old Law lying in his lap, with the four Evangelists in the angles, kneeling;—secondly, our Saviour standing with St. John resting his head on his bosom;—thirdly, the portrait of St. Matthew; and fourthly, the Salutation of the Virgin. Before St. Mark's

Gospel are the portrait of that Evangelist, and the salutation of the Virgin Mary. At the beginning of St. Luke's Gospel are his portrait, and the crucifixion of our Saviour; and before the Gospel of St. John, are the picture of that Evangelist, and the Ascension of our Lord.

To these may be added a very fair and beautiful transcript (No. 4425.) of the celebrated poem, intituled *Le Roman de la Rose*, begun in French by Guillaume de Lorris, and finished by Jehan Clopinel, or de Mehun. This MS. is so richly ornamented with a multitude of miniature paintings, executed in a most masterly manner, that it is not to be exceeded by any other manuscript preserved in the libraries of Europe. Mr. Astle conjectures that it probably is the copy which was presented to Henry IV. King of France, as the blazon of his arms is introduced in the illuminations with which the first page of this work is illuminated.

A very antient MS. of the book of Genesis, which was in the Cottonian Library, and almost destroyed by fire in 1731, contained two hundred and fifty curious paintings in water colours: twenty-one precious fragments that escaped the fire, have since been published by the Society of Antiquaries, of London. Forty-eight drawings of nearly equal antiquity with the above have also been engraven, and inserted in the third

volume of Lambecius's catalogue of the Imperial Library at Vienna. The drawings in the Vatican Virgil, made in the fourth century before the arts fell into disuse, illustrate the different subjects discussed by the Roman bard: these likewise have been given to the public in the splendid folio edition of Virgil, printed at Rome in 1741. The paintings of masks, &c. in the Vatican Terence, were also published at Rome in 1736. Mr. Johnes has illustrated his excellent translation of Froissart's Chronicles, with engravings from the finest illuminations in our own Libraries, as well as those of France. Mr. Strutt's "View of the Customs, &c. of England," and his "Regal and Ecclesiastical Antiquities of England," exhibit a great number of prints that convey a good idea of the delicacy and art with which illuminations were executed. Though these prints do not exhibit the bright and vivid colours of the originals, they give us a view, not only of the persons and dresses of our ancestors, but also of their customs, manners, arts and employments, together with their ships, houses, furniture, &c. and further enable us to judge of their skill in drawing and colouring. Their figures are often stiff and formal, but their ornaments are in general fine and delicate, their colours are clear and bright, particularly their gold and azure; and in some of these illu-

minations the passions are very strongly depicted¹.

Illuminations are not confined to MSS. In the infancy of the typographic art, the first letter of a book or chapter was frequently left blank, for the purpose of being illuminated at the option of the purchaser²; but, after the establishment of printing in the different countries of Europe, this elegant practice of illuminating gradually declined, and at length was entirely neglected.

In concluding these brief hints on the subject

¹ Henry's Hist. of Brit. vol. x. p. 214. The subject of illuminations is also ably treated by Mr. Astle, *On Writing*, p. 193, *et seq.* The celebrated Portland Missal must not be forgotten: a description of it occurs *infra*, Part. II. Chap. I. Sect. II. The catalogue of the Duke de la Valliere contained, perhaps, the richest collection of MSS. thus splendidly illuminated; many of them were sold for excessive prices. The catalogue of M. Paris, though small in the number of its articles, was equally remarkable for the splendour with which the MSS. were executed. One article of this catalogue (No. I45.) must have been peculiarly valuable to book-collectors: it is intitled "*L'Art de connoître et d'apprécier les miniatures des anciens manuscrits*" by the Abbé Rive, and was illustrated with thirty illuminated paintings on vellum, copied from the finest MSS. in the Duke de la Valliere's Library and other valuable cabinets.—The Abbé Rive proposed to give a dissertation on illuminated MSS. to accompany these paintings; but, having never accomplished it, he gave to M. Paris a description of the different designs in manuscript.

² Some specimens of such illuminations occur *infra*, Part I. Chap. III. Sect. VII.

of illuminations, it may not be uninteresting to the biblical student, to remark, that Professor Tychsen of Rostock has furnished a certain criterion, by which MSS. illuminated by Christians may be distinguished from those executed by Jews. He observes that all manuscripts of the Masorah, with figures of dragons, sphinxes, hogs, or any other of the unclean animals ;—all MSS. of the Testament, with the Vulgate version, or corrected to it, or corrected to the Septuagint version ;—all MSS. not written with black ink, or in which there are words written in gold letters, or where the words or the margin are illuminated ;—and all manuscripts, where the word Adonai is written, instead of the word Jehovah, were written by Christians and not by Jews. Professor Tychsen pays an honourable tribute to the industry and calligraphy of the Spanish Jews¹.

§ 13. MSS. OF HERCULANEUM.—The town of Herculaneum was swallowed up by an earthquake, occasioned by an eruption of Mount Vesuvius, A. D. 79, in the reign of the Emperor Titus. This famous city was discovered in the beginning of the eighteenth century ; and from its ruins have been dug busts, statues, paintings,

¹ *Tentamen de variis Codicum Hebræorum Veteris Testamenti MSS.* Rostock. 1772. Cited by Mr. Butler, *Horæ Biblicæ*, vol. i. pp. 51—54. 4th edit.

and utensils, which have greatly contributed to enlarge our knowledge concerning the arts, &c. of the antients. A more valuable acquisition was thought to be made, when a large parcel of manuscripts was found among the ruins. In order to form an accurate idea of them, conceive (says the Abbé Barthelemy) a strip of paper of an indefinite length, and about twelve inches wide: throughout the length of this paper are several columns of writing, distinct from each other, and proceeding from right to left. When finished, it is so rolled up, that in opening the manuscript you perceive the first column or page of the work, and so on as you unroll it, the last being in the inner part of the roll.

The MSS. of Herculaneum were found in an apartment of a palace, that had not been thoroughly cleared, when M. Barthelemy inspected the ruins of Herculaneum: they are of Egyptian paper, and the colour of charcoal. Various fruitless attempts were made to unroll them; but at length a patient and persevering monk suggested a mode of completely unrolling the paper. He made some efforts that occupied a considerable portion of time; but in which by degrees he was successful. His plan is thus.—Having found the beginning of the MS. he fastens to the exterior edge some threads of silk, which he winds round so many pegs in a small frame:

these pegs he turns with the utmost precaution, and the manuscript is imperceptibly unrolled. Little can be expected from the first few layers of the paper, which are in general torn or decayed. Before any pages of a work can be obtained, it must be unrolled to a certain depth, that is, till the part appears which has suffered no other injury than that of being calcined: when a few columns have thus been unrolled, they are cut off and pasted on linen¹.

The result of all these laborious pursuits has been the publication of two fragments;—one against music by Philodemus, an Epicurean Philosopher: it was edited from the royal press at Naples by M. Rosini, in 1793, under the title of *Herculanensium voluminum quæ supersunt Tomus I.* The MS. is in uncial characters, without divisions of words, and with few peculiarities of writing, except the antient sigma C and the curved epsilon ε. It consists of thirty-eight fragments or columns, beside the title ΦΙΛΟΔΗΜΟΥ ΠΕΡΙ ΜΟΥΣΙΚΗΣ Δ—“the fourth Book of Philodemus on Music:” each column is copied in a fac-simile engraving, of the exact size of the original, and minutely expressing every crack, chasm, and defect of the MS. On the page opposite to each plate, the same portion of the text is given in common Greek types, with

¹ Travels in Italy, by M. Barthelemy, pp. 245, 246.

all the deficient letters or words, which have been supplied by conjecture, distinguished by red characters; and in a parallel column is a Latin version. To these succeed the learned notes of the editor, illustrating the same portion.

The other fragment, which has been published, is a mutilated tract of Epicurus on Piety: it occurs, as the ninth Dissertation, (by Sir William Drummond) in "*Herculanensia; or Archæological and Philological Dissertations, containing a MS. found among the ruins of Herculaneum*". From this interesting volume we learn that Sir W. Drummond is in possession of more than eighty Greek MSS. and of one in Latin, a fragment of an heroic poem. They are all without an accent or spirit, and beautifully written: the letters are capitals; and there is no distinction between the words.

Great expectations, indeed, were raised when His Royal Highness the Prince Regent munificently engaged several literati to examine these MSS. but hitherto their labours have been almost entirely vain; the recovery therefore of the long lost decads of Livy, and of other precious writings, both Greek and Roman, must now be abandoned as hopeless.

Some charred volumes from Herculaneum

¹ This volume is the joint production of Sir William Drummond and Mr. Robert Walpole.

were sent, a few years since, as a present from the court of Naples, to His Royal Highness the Prince Regent: four of these, we believe, are still untouched; and various efforts have been made to unroll the other two, but without success. His Royal Highness's munificent offer of defraying the expenses of unrolling, decyphering, and publishing the MSS. in possession of the King of Naples, having been acceded to by the latter, the Rev. Mr. (now Dr.) Hayter was selected; he arrived at Naples, in the beginning of the year 1802, and was nominated one of the directors for the developement of the MSS. The result of his labours, Dr. H. has recently stated to the public¹; from which we learn that more than two hundred "*Papiri*" were opened wholly, or in part, during his residence at Naples. Ninety-four MSS. brought by Dr. Hayter from Herculaneum, are in possession of the University of Oxford; which has announced its intention of publishing at large the most interesting of these precious reliques of antiquity².

Two circumstances contributed to impart to

¹ In "A Report upon the Herculaneum Manuscripts, addressed by permission to His Royal Highness the Prince Regent, by the Rev. John Hayter, A. M."—4to. 1811.

² Monthly Magazine, vol. xxxii. p. 374.

the manuscripts of the antients that durability, to which we owe their preservation: viz. their singular care in preparing the vellum, and the attention paid to the ink employed for writing.

The vellum appears to have been selected for its fineness, close texture, and perfect clearness from every thing, which might prevent either the cutting or formation of the characters, or the adhesion of the ink: and for this purpose the vellum was carefully freed from every unctuous quality that would have counteracted the striking of the ink, or caused an excoriation of the latter when dry. The durability of vellum is truly astonishing. There are in our public libraries some books, upwards of one thousand years old; which exhibit no signs of decay, and which, accidents excepted, may last for many centuries to come, equally unimpaired by the ravages of time. Whatever might be the processes employed in preparing vellum for MSS. it is evident that it was better made one thousand years ago, than it has since been; as will easily appear by comparing books of different ages.

The use of ink was early known among the antients, and is mentioned by Pliny, Cicero, and Vitruvius. Horace compares a wretched panegyrist to ink, which blackens whatever it

touches¹. It is not well ascertained how soon the present kind of writing-ink came into use : it has certainly been employed in most European countries for many centuries. The ink of the antients has nothing in common with ours but gum and colour : gall-nuts, vitriol and gum are the principal ingredients of modern ink, while lamp-black or the black obtained from burnt ivory formed the basis of that of the antients ; which was also made in the sun, and without the aid of fire. Whatever were the ingredients employed, the ink then made was unquestionably of a more encaustic nature than that used in subsequent ages, as is evident from its solidity and blackness, and its consequently less liability to fade or decay. The Chinese and many of the oriental inks appear to be prepared in a similar way. Red ink was obtained from vermillion, cinnabar and carmine ; purple, from the murex (mentioned in the course of this work,) which yields a purple colour, and was employed by the antients both for dying, and for painting in red. Blue, yellow, and green colours were made from pulverized gold and silver, sulphuretted, and submitted to the action of fire ; and were used for ornamenting and enriching MSS.

MSS. claiming a very remote antiquity are to be suspected, when they are written with ink, in

¹ Epist. I. l. 2. v. 235, 236.

all respects similar to that now used. Where MSS. have sometimes been rendered incapable of being decyphered, by the quality of the ink, by time and by other accidents, they may be restored by reviving the writing; the following is recommended by M. De Vaines, as the simplest and most efficacious expedient for this purpose¹.

Mix half a spoonful of brandy (spirit of wine?) with an equal quantity of clear water, and scrape into it a little nut-gall: when it has infused for a few minutes, let the parchment or vellum be lightly rubbed with a small piece of fine sponge, and the obliterated strokes will re-appear. This process, however, will with difficulty take effect, on paper that has for a long time been penetrated with moisture or damp.

The following process has also been successfully practised by Sir Charles Blagden, M. D. for the purpose of restoring decayed MSS. He recommends prussiated alkali, to be thinly spread with a feather over the traces of the letters, which are to be touched with a diluted acid, applied by means of a feather, or a piece of stick cut to a blunt point. Though the alkali should have produced no sensible change of colour; yet, as soon as the acid comes upon it, every trace of a letter turns to a fine blue, which soon acquires

¹ Dict. de Diplomatique, tom. i. p. 510.

its full intensity, and is beyond comparison stronger than the colour of the original trace had been. The corner of a piece of blotting paper is now to be carefully and dexterously applied near the letters, so as to absorb the superfluous liquor, and thus prevent the parchment from being stained : because this superfluous liquor, which takes part of the colouring matter from the letters, becomes a dye to whatever it touches. Care also must be taken not to bring the blotting paper in contact with the letters, as the colouring matter is soft while wet, and may easily be rubbed off.

The acid chiefly employed by Sir Charles Blagden was the muriatic ; but both the vitriolic and nitric acids succeed very well. They should however be so far diluted, as not to corrode the parchment, after which the degree of strength does not seem to be a matter of much nicety¹.

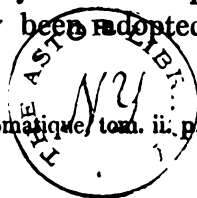
The instruments, employed at different times for the purpose of writing, have varied according to the material on which men traced their thoughts. For tablets, the styles already mentioned² were in use : for paper and parchment, which were written on by means of a fluid, a species of reed (*calamus*) was antiently used,

¹ Philosoph. Transact. vol. lxxvii. p. 456.

² See page 37, *supra*.

being cut in the form of our modern pens. The strokes made with these instruments were mostly coarse and inelegant: according to Chardin, they are still employed by the oriental Greeks, Turks and Persians. No certain date can be assigned, when the pens now in use were first invented: they are supposed to have been known since the fifth century; and, subsequently to the tenth, reeds have not been employed for the transcribing of manuscripts. It is most probable therefore, that from the fifth to the tenth century both reeds and pens were in use, and that since the tenth century the use of pens has generally and exclusively been adopted in Europe¹.

¹ De Vaines, Dict. de Diplomatique, tom. ii. p. 182.



CHAPTER III.

Origin and Progress of Printing ; Mechanism of the Art, &c.

No branch of Bibliography is, perhaps, of more importance than the History of Printing: in fact, an acquaintance with its discovery and progress, as well as with those artists who by their talents have contributed to its perfection, becomes indispensable, in order to obtain a correct knowledge of books. The following Sections, therefore, will exhibit a concise account of the origin and progress of printing, and the mechanism of the art, together with some observations on the earlier specimens of typography.

SECTION I.

Origin of Printing—Introduction of the Art into the different Cities of Europe.

THE first authors or inventors of typography, by which we understand the art of printing with *moveable types*, were extremely anxious to preserve their important secret: occupied solely by their pecuniary interests, they probably

neither contemplated the incalculable benefits which literature would derive from its practice ; nor, still less perhaps did they regard the honour which so important a discovery would reflect upon themselves. Hence great difficulty has arisen, in ascertaining with precision the time when this useful invention was discovered : and different claims for various cities have in consequence been maintained by men of letters, who have urged those claims with various degrees of success. By no one has this interesting topic been discussed with more ability than by M. Santander¹ ; who has ably investigated the claims of the rival cities. In the following pages therefore we shall chiefly give the results of that eminent Bibliographer's enquiries.

The honour of having given birth to the typographic art is claimed by three cities, Haerlem, Strasburg and Mayence (or Mentz) : The pretensions of Haerlem have chiefly been advocated by M. Meerman, who has with much industry collected every thing that could support his hypothesis ; but his principal authority is the account published in the *Batavia* of Adrian Junius, who ascribes the invention of printing to Laurentius, the son of John, surnamed Coster, (Koster, that is Sacristan, of the Cathedral at Haerlem,

¹ Dictionnaire Bibliographique choisi du 15^e. Siecle, tom. i. pp. 1—107.

at that time a respectable office.) Junius's narrative runs thus¹ :

“ One hundred and twenty-eight years since, while Coster was walking in a wood near the city (as the opulent citizens of that time were accustomed to do), he began first to cut some letters upon the rind of a beech tree; which being impressed on paper, he printed one or two lines as a specimen for his grand-children (the sons of his daughter) to follow. This having happily succeeded, he meditated greater things, as he was a man of ingenuity and judgment; and first of all with his son-in-law Thomas Peter, who left three sons (all of whom attained the consular dignity), he invented a more glutinous writing-ink, because he found the common ink sink and spread. With this he printed the *Speculum nostræ Salvationis*, a Flemish work composed of figures and letters; the leaves of which being printed only on one side, were afterwards glued together, that the blanks might not exhibit an unsightly appearance. Coster afterwards changed his wooden types for leaden ones, and these for tin ones: finding his new discovery a very profitable concern, he took into partnership one of his servants, named John (and who is *supposed* to have been sur-

¹ See the original passage in note (A) at the end of the Appendix.

named Fust.) This servant, having learned the manner of joining and casting characters, as well as other particulars relative to the art of printing, in which he had been instructed under an oath, stole from his master his whole printing apparatus, on Christmas eve, while the family were at prayers at church. Having first directed his flight to Amsterdam and thence to Cologne, he finally settled at Mayence. Here he established his printing-office; and in 1442 printed, with the types he had stolen from his master, Laurence Coster, the *Doctrinale Alexandri Galii*, (a grammar at that time in great request), together with the Treatises of Petrus Hispanus."

In support of this account, given on the hearsay of some aged persons, (men he says worthy of credit,) Junius adds the communications made to him by Nicolaus Galius, (who had formerly been his tutor) and Quirinus Talesius. By them he was informed, that they had in their youth frequently heard the same narrative related by one Cornelius, a bookbinder, who was nearly eighty years old, and whom Junius would represent as having been employed by Coster.

Such is the substance of this celebrated fable, the only authentic document, on which the Dutch writers have relied, in their strenuous efforts to vindicate for Haerlem its chimerical claims: it is evident (Santander remarks) that

Junius only wished to embellish his description of a city, where he at that time resided, by an idle tale, unknown till his own time, and the report of which had just then only begun to be circulated.

The truth is, no author, no Dutch work whatever, written in the fifteenth, or early in the sixteenth century, makes the least possible mention of this fact; not even the celebrated Erasmus, who, being born at Rotterdam in 1467, could not be ignorant of an event so remarkable, and so glorious for his country.

A circumstance, which further tends to invalidate Junius's account, is, that Quirinus Talesius, the very authority he refers to, was for several years Erasmus's secretary: now it is incredible that Erasmus could be ignorant of a fact, related with all its circumstances to Adrian Junius. If Erasmus knew it, it is difficult to conceive how *he* could suffer so remarkable an event to pass in silence; especially as he had so many opportunities to speak of the history of printing, being on terms of intimate friendship with the celebrated Thierry Martens, of Alost, the first Dutch printer, whose epitaph Erasmus composed; and who was so much interested in vindicating this honour for his country, if the fact had been true. But the case is quite the reverse: whenever he speaks of the invention

of this art, it is always most explicitly in favour of Mayence, and never of Haerlem, of which he does not say a single word¹.

It would exceed the limits necessarily assigned to this abstract of the history of the typographic art, were we to enter into all the details of the examination of Meerman's account, instituted by Santander. It may therefore suffice to observe, that he has fully investigated the claims in favour of Haerlem; and, independently of the strong presumptive evidence already adduced, he has proved not only that such a person as Coster never existed, and consequently that printing was not discovered at Haerlem; but also that the celebrated *Speculum*, on which Meerman so strenuously relies, is printed with fusile types. Far from being executed about the year 1430, he is persuaded it cannot be prior to the year 1480: the want of signatures, figures, and other typographic marks, whence Meerman would infer its antiquity, is common to thousands of other editions of the fifteenth century; besides, it would be ridiculous to look for signatures, figures, and catch-words in a book, composed of a single sheet.

So strenuously, however, does Meerman advocate Junius's romantic narrative, that he would make paradoxes pass for proofs: his

¹ See note (B) at the end of the Appendix.

enthusiasm in favour of his country induces him to represent Coster as an extraordinary man; who, contrary to the order of nature in the invention of arts, begins the execution of his pretended typographical art, by printing with moveable letters an *epistographous* book (that is, one printed on both sides),—afterwards retrogrades towards elementary ideas, and finishes, where the art must have commenced, by printing the *Speculum humanæ Salvationis*, the *Figuræ Biblicæ*, and other similar works, which are executed only on *one* side; and which Meerman, *without foundation*, attributes to his pretended first printer: for, Baron Heineken has demonstrated that all these books, with images engraven on wood, were originally composed and executed in Germany. His elaborate work¹ contains, among other curious notices, a very detailed account of several editions of the *Speculum humanæ Salvationis*, the very work rendered so celebrated by the fable of Junius and the pretensions of the Dutch. We thence learn, that there are two Latin editions of it extant, without date; another in Latin and German, printed at Augsburg in 1471; several in the German language, some of which are without date, while others bear the dates of 1476, 1492, and 1500;

¹ *Idée Générale d'une collection complète d'estampes*, Leipsic, 8vo. 1771.

two, in the Flemish tongue without date, and a third printed by John Veldener, in 1483; and lastly, others in French, which are preserved in the libraries of the different cities, universities and monasteries of Germany¹.

It is evident therefore that Haerlem is not the city, where the art of printing, "the nurse and preserver of the arts and sciences," was discovered. If we examine all the authors without exception, who have written in favour of that city, we shall not find the least contemporary document, on which to support their pretensions: every assertion they make, is reduced to the narrative of Junius, solely composed of hearsays, on which every one comments according to his fancy or his prejudices. Yet, on the authority of this fable, have the Dutch proceeded to strike medals, engrave inscriptions, and erect statues and other monuments to the glory of the immortal and incomparable first printer Laurent Janssoen, whom they have sometimes represented to be a disturber of the public peace, and have condemned him as such, sometimes as a sacristan or church-warden, afterwards a sheriff, then a treasurer, and finally an illustrious branch of the house of Brederode, a

¹ See an account of this celebrated work, illustrated with a fac-simile, in the Appendix (No. I.)

descendant in the right line from the antient sovereigns of Holland !

If numbers could add certainty in deciding this long-contested question, they will also be found to militate against the claims of Haerlem. Mallinkrot, who treats this subject with great skill and discernment, has with indefatigable industry collected testimonies from both sides of the question, from the promulgation of the art to the time in which he wrote (1640); and has placed them in the following order in the beginning of his work on the origin and progress of printing¹.

For Mentz, before the dispute was started by Junius 62

Those who have written on the same side since Junius 47

109

Those who have written against Haerlem 13

Those who are neuters 11

24

From this comparison it is evident that the numbers are greatly against the pretensions of Haerlem. Equally decisive is the result of M. Daunou's Analysis of the different opinions relative to the origin of typography².

¹ Bernandini à Mallinkrot de ortu et progressu artis typographicæ. Colon. Agrippinæ, 1640. 4to.

² Daunou, Analyse des Opinions diverses sur l'origine de

Transported by their patriotism, learned Dutchmen have resorted to every possible expedient in order to represent Coster not only as the father of the art of printing, but also as the inventor of engraving on wood; a claim that cannot be supported, and which has even less foundation than the former.

For, certainly, if there had lived at Haerlem an engraver on wood, such as they would have us believe in the person of their Coster, we should have found some notice of him in Carel Van Mander's History of the Lives of Painters and Engravers, published in 1603¹; a work for which he would doubtless have made the most accurate researches, particularly in every thing relative to Flemish and Dutch artists. One would naturally expect to see, in such a work, an exact and minute account of so celebrated an artist as Coster, if he had really been the inventor of the art of engraving in wood, whose glory so deeply interested the city of Haerlem,

l'Imprimerie, 8vo. Paris, an xi. An abstract of these different opinions will be given *infra*, Part III. chap. II. sect. III. in the account of writers who have treated on the origin of printing.

¹ Charles Van Mander, or Vermander, was born at Meulebeeke, a village in Flanders, in the lordship of Courtray, in 1548; he settled at Haerlem in 1583; and went thence to Amsterdam in 1603, where he died September 11, 1606, in the 58th year of his age.

where the author had settled. The famous Laurent Coster, however, is not at all noticed either as a printer or as an engraver on wood, or in fact under any other denomination whatever; though the *Batavis* of Junius had then been printed nearly twenty years, and the inhabitants of Haerlem were perfectly acquainted with his narrative respecting Coster. It is not difficult (Santander observes) to divine the reason of all this:—Van Mander well knew that historical facts, founded on conjectures and related by hearsay, were not worthy of credit; and therefore did not think proper to introduce such a fable into his work, however agreeable it might be to his fellow-citizens.

It appears very certain that printing is indebted for its origin to the art of engraving on wood: at the end of the fourteenth and in the beginning of the fifteenth century, the Italians, Germans, Flemings and Dutch began to engrave on wood and copper¹; but the previous advances were gradual. The inscriptions in relief upon monuments and altars, in the cloisters and over church-porches, served as models for block-

¹ The progress of *early engraving and ornamental printing* is traced with great ability, and illustrated with very numerous engravings, by the Rev. T. F. Dibdin in the Preliminary Disquisition prefixed to his elegant and improved edition of Ames' and Herbert's *Typographical Antiquities of Great Britain and Ireland*, pp. iii—lvii.

printing: the letters on painted windows greatly resemble those in the books of images. The invention of playing cards was an intermediate step. M. Bullet (in his "*Recherches Historiques sur les Cartes a jouer*") endeavours to shew that they were invented in France about the year 1376: but Baron Heinecken has proved that the invention of playing cards belongs to the Germans, and that they were known and used in Germany, in the year 1300. At first, the cards were painted; about a century afterwards a method was devised of printing them from blocks. To this we may directly trace the art of printing; of which the books of images form the next step.

The manufacturers of playing cards first began to engrave on wood the images of the saints; to these they afterwards added some verses or sentences analogous to the subject, as Baron Heinecken found in a very curious wood-cut of St. Christopher, which he discovered in the convent of the Chartreux, at Buxheim, near Memmingen¹; and at the foot of which he read the following words, engraved and printed together with the figure: *Cristoferi faciem die quacunque tueris. Illa nempe die, morte mala non morieris. Millesimo CCCC^o. XX^o tertio.* As the art of engraving on wood proceeded, its pro-

¹ This great curiosity is now in the superb collection of Earl Spencer.

fessors at length composed historical subjects, with a text or explanation engraven on the same plates: these form the *books of images* above mentioned: they were printed from wooden blocks; one side of the leaf only is impressed, and the corresponding text is placed below, beside, or proceeding from the mouth of the figure¹.

These books of images, then, may with very great probability be regarded as the first attempts at printing, and as indicating the means of discovering that important art: for nothing more was necessary than to cut the letters engraven in relief on the plates, or rather to engrave them separately, in order to render them moveable, and thus allow any word, sentence, &c. to be printed at pleasure. This was accomplished by John Gutenberg, of Mayence (or Mentz), about the year 1438.

John Gutenberg or Gansfleisch, who is supposed to have been born at Mayence, in the beginning of the fifteenth century, settled at Strasburg about the year 1424, and perhaps before. In 1435 he entered into a partnership with Andrew Drizhennius or Dritzehen, John Riff, and Andrew Heilman, citizens of Stras-

¹ These books of images are of extreme rarity; some account of them will be found in the Appendix, No. I., illustrated by accurate fac-similes.

burg, and bound himself to disclose to them some important secrets, by which they should make their fortunes. Each at first contributed eighty florins, and afterwards one hundred and twenty-five. The workshop was in the house of Andrew Dritzehen; who dying, Gutenberg immediately sent his servant Lawrence Beildeck to Nicolas, the brother of the deceased; and requested that no person might be admitted into the workshop, lest the secret should be discovered, and the *forms* stolen. But they had already disappeared: and this fraud, as well as the claims of Nicolas Dritzehen to succeed to his brother's share, produced a law-suit among the surviving partners. The cause was heard: from the depositions of five witnesses who were examined, and especially from the evidence of Beildeck, Gutenberg's servant, it is incontrovertibly proved that Gutenberg was the first who practised the art of printing with moveable types, and that on the death of Andrew Dritzehen he had expressly ordered the forms to be broken up and the characters dispersed, lest any one should discover his secret. The result of this law-suit was a dissolution of the partnership¹.

¹ The document containing an account of this trial, together with the sentence of the magistrates of Strasburg, is dated in December, 1439. It was published in the original German

Gutenberg, after having sunk what he and his associates had embarked in this speculation, went in 1445 to his native city Mayence, and resumed his typographic labours: here, in 1450, he entered into a new partnership with John Fust, an opulent citizen, who advanced him the capital necessary to establish a new printing-office. At this establishment was printed for the first time (in 1455) the celebrated Latin Bible, so much disputed among bibliographers¹; the expenses incidental to which being very considerable, Fust instituted a suit against Gutenberg; who was obliged to pay interest, and also part of the capital so advanced. In consequence of this with a Latin version by M. Schoepflin in his "Vindiciæ Typographicæ;" whence Santander has introduced an extract into his Dictionnaire Bibliographique, vol. i. pp. 74—77, notes. In the different documents above referred to, John Gutenberg is variously called *Johannes Gutenberg*;—*Johannes de Moguntia*, dictus *Gutenberg*;—*Johannes dictus Gensefleisch*, alias nuncupatus *Gutenberg de Moguntia*;—*Johannes Gensefleisch junior*, dictus *Gutenberg*;—*Johannes Gansfleisch*, dictus *Sulgeloch* vel *Sorgeloch*.

¹ For a particular account of this famous bible, see Santander, vol. ii. pp. 176—180. Another specimen from Gutenberg's press was discovered a few years since by M. Fischer, among a bundle of old accounts in the archives of Mayence. It is an almanack for the year 1457, and served as a wrapper for a register of accounts for that year. M. Fischer thinks it was printed towards the close of the year 1456; and consequently is the most antient specimen of printing, that is extant with a certain date. Peignot, *Repertoire Universel*, p. 358.

suit, the partnership was dissolved; and the whole of Gutenberg's printing apparatus fell into the hands of John Fust.

Notwithstanding this unfortunate circumstance, Gutenberg was not discouraged from following his pursuits: he established a new press, and continued to exercise his art until 1465, when being admitted by the elector Adolphus of Nassau into his band of gentlemen-pensioners, with a handsome salary, he relinquished an art which had caused him so much trouble and vexation.

Although no printed work has hitherto been discovered, bearing the name of John Gutenberg, it is nevertheless certain that he printed several, and that the *Catholicus Johannis de Balbis*¹ is one of the productions of his press, the characters being exactly the same as those afterwards employed in the *Vocabularius ex quo*¹, printed in 1467 in Gutenberg's office, which after his death in 1468 became the property of Conrad Humery, syndic of the city of Mayence, who, most probably had advanced money for its establishment.

John Fust having, by virtue of the judgment given Nov. 6, 1455, above mentioned, become possessed of Gutenberg's original typographic

¹ A brief notice of these works will be found in the Appendix, No. VII.

apparatus, began to print on his own account, with the assistance of Peter Schoiffer, of Gernsheim; an industrious young man of inventive talents, who was most probably initiated into the mysteries of the art during the continuance of the partnership. Their first publication was a beautiful edition of the Psalms, finished Aug. 14, 1457, soon after Schoiffer's separation from Gutenberg: it is the first book known to be extant, which has the name of the place where it was printed, and that of the printers, together with the date of the year when it was executed.

From the short time which elapsed between the dissolution of Gutenberg's and Fust's partnership, and the date affixed to the above mentioned edition of the Psalter, there is reason to believe that the characters employed in its execution were already at hand, and had been finished by Gutenberg previously to his rupture with Fust. In fact, it does not seem likely that within eighteen months Peter Schoiffer (who is admitted to have improved the art of letterfounding) could have prepared all the characters necessary for the printing of so considerable a work, in addition to the instruments invented for casting letters, which he must also have made. A further proof against Schoiffer is, that the large initial letters of his edition of the Psalter had already been employed in former

impressions, which were indisputably made by Gutenberg.

Although the initial letters of this Psalter were engraven on wood, yet the rest of the volume is certainly printed with metal types; the invention of which has by some authors been ascribed to Peter Schoiffer. Trithemius¹, however (who was contemporary with him), asserts the contrary to be the case; and positively declares that Gutenberg and Fust invented the art of casting characters in metal, which before they were obliged to cut with the hand; but that Schoiffer subsequently discovered a more expeditious method, which further contributed to the perfection of the art.

It is evident, therefore, that the art of founding metal characters was acquired from John Gutenberg, to whom we are also indebted for its invention; and was afterwards perfected by Schoiffer², who invented punches for striking the matrices. For this last improvement Fust rewarded him, by giving him his only daughter in marriage.

We have, under the firm of Fust and Schoiffer, the *Psalter* of 1457, and a reprint of the

¹ *Annales Hirsaug.* tom. ii. p. 491.

² See some additional testimonies confirming the above statements, and drawn from publications of the younger Schoeffer, in Note (B) at the end of the Appendix.

same work in 1459;—the *Rationale Durandi*, 1459;—*Clementis Papæ Constitutiones*, 1460;—*Biblia Latina*, 1462;—*Liber sextus Decretalium*, 1465;—*Cicero de Officiis*, 1465; and a reprint of the same in 1466, *quartâ die mensis Februarii*. Fust's name appears for the last time to the *Cicero de Officiis*, of 1466: all works subsequent to that date exhibit the name of Schoiffer alone; who continued to print till his death in 1502, when he was succeeded by his son John Schoiffer.

Having thus traced the progress of the typographic art, we apprehend the reader will concur in our opinion, 1. That the city of Mayence, or Mentz, has the fairest claim to be considered as the birth-place of this inestimable discovery;—2. That Gutenberg was its inventor;—3. That Schoiffer completed it by the invention of punches for striking the matrices;—and 4. That John Fust, having furnished, throughout, the money necessary for the establishment of the printing-office, can only be considered as a sleeping partner in the concern, or rather as a protector of the art of printing.

When the city of Mentz was taken by Adolphus, Count of Nassau, in 1462, Fust and Schoiffer suffered materially, in common with their fellow-citizens: their workmen dispersed themselves to seek their fortunes, and the art of printing was thus diffused over Europe. As the

limits necessarily assigned to a Manual will not admit of a detailed account of the introduction of typography into the different cities of Europe, the reader (it is hoped) will be gratified by the following brief series of dates and places, extracted from Santander's elaborate History of Printing. The Roman numerals indicate the *articles*;—the Arabic figures, the *date*;—the names of the *towns* follow in small capital letters;—the titles of the books first printed at each place with *certain* dates, follow in Italic;—and the *printers' names* conclude each article. Such names as occur in parentheses are those of printers, who are considered to be the first in each respective town, but whose impressions are destitute of dates.

- I. 1457. MAYENCE, *Psalmorum Codex*, in folio. Printers, John Fust and Peter Schoiffer. (John Gutenberg.)
- II. 1461. BAMBERG, *A Collection of Fables*, in German. fol. Pr. Albert Pfister.
- III. 1465. SUBBIACO, *Lactantii Opera*. 4to. Pr. Conradus Sweynheim and Arnoldus Pannartz.
- IV. 1467. ROME, *Ciceronis Epistolæ familiares*, in 4to. The same printers.
- V. 1467. ELFELD, *Vocabularium ex quo*. Pr. Henry and Nich. Rechtermuntze, and Wigandus Spyes.
- VI. 1467. COLOGNE, *S. August. de Singul. Clericor.* 4to. Pr. Ulricus Zel, or Zell, of Hanau.
- VII. 1468. AUGSBURG, *Meditationes vitæ Christi*. fol. Pr. Gintner Zainer, of Reutlingen.
- VIII. 1469. VENICE, *Ciceronis Epistolæ familiares*. fol. Pr. Joannes de Spira.

- IX. 1469. MILAN, *Miracoli de la glor. V. Maria.* 4to. Pr. Philippus de Lavagna.
- X. 1470. NURENBURG, *Comestorum vitiorum.* fol. Pr. Joannes Sensenschmidt (1472)¹.
- XI. 1470. PARIS², *Epistolæ Gasparini Pergamensis.* 4to. Pr. Ulricus Gering, M. Crantz, and M. Friburger, of Colmar.
- XII. 1470. FOLIGNO, *Leon. Aretini de Bello Italico.* fol. Pr. Emilian de Orfinis.
- XIII. 1470. TRE'VI, *Hist. de indulgentia B. Francisci.* 4to. Pr. Joan. Reynardi.
- XIV. 1470. VERONA, *la Batracomiomachia.* fol. Pr. Joan. de Verona (1472).
- XV. 1471. STRASBURG, *Gratiani decretum.* fol. Pr. Henricus Eggestein (Joan. Mentel or Mentelius).
- XVI. 1471. SPIRE, *Postilla super Apocalypsim.* 4to. Pr. Petrus Drach (1477).
- XVII. 1471. TREVISO, *Mercurius Trimegister.* 4to. Pr. Girardus de Lisa, de Flandria.
- XVIII. 1471. BOLOGNA, *Ovidii Opera.* fol. Pr. Balthasar Azzoguidi.
- XIX. 1471. FERRARA, *Martialis epigram.* 4to. Pr. Andreas Belfortes.
- XX. 1471. NAPLES, *Bartholi de Saxo Ferrato lectura.* fol. Pr. Sixtus Riessinger, of Strasburg.
- XXI. 1471. PAVIA, *Joann. Matthæi de Gradibus opera medica.* fol. Pr. Anton. de Carcano (1476).

¹ The figures within parentheses in the art. x. and in some following ones, indicate the date of impressions, in which the printers' names appear for the first time.

² When printing was first established at Paris, the copyists, finding their business so materially injured, presented a memorial of complaint to the parliament; which tribunal (as superstitious as the people who considered the printers to be conjurors) caused their books to be seized and confiscated. Louis XI. however, who with all his bad qualities was the friend and patron of letters, prohibited the parliament from taking any further cognizance of the affair, and restored their property to the printers. Lambinet, *Recherches sur l'Imprimerie*, pp. 171, 172.

- XXII. 1471. FLORENCE, *Comment. Servii in Virgil.* fol. Pr. Bernard Cennini and Son.
- XXIII. 1472. CREMONA, *Angeli de Perusio lectura.* fol. Pr. Dion. de Paravisino and Steph. de Merlinis, of Leucho.
- XXIV. 1472. FIVIZANO, *Virgilius.* fol. Pr. James Baptista (a priest) and Alexander.
- XXV. 1472. PADUA, *la Fiammetta di Boccacio.* 4to. Pr. Barth. de Valdezocho, and Mart. de Septem Arboribus.
- XXVI. 1472. MANTUA, *Tractatus Maleficiorum.* fol. Pr. Petrus Adam de Michaelibus.
- XXVII. 1472. MONTRE'AL, in Sicily, or Mondovi, in Italy, according to Peignot, *S. Antonini de instruct. confess.* 4to. Pr. Ant. Mathias, of Antwerp, and Balthasar Corderius.
- XXVIII. 1472. JESI, *Comedia di Dante.* fol. Pr. Fridericus Veronensis.
- XXIX. 1472. MUNSTER in Argau, *Roderici Speculum.* fol. Pr. Helias Helye, or de Louffen.
- XXX. 1472. PARMA, *Trionfi di Petrarca.* fol. Pr. Andreas Portiglia.
- XXXI. 1473. BRESCIA, *Statuta Brixie.* fol. Pr. Thomas Ferrandus.
- XXXII. 1473. MESSINA, *Vita di S. Hieronymo.* 4to. Pr. Henricus Alding.
- XXXIII. 1473. ULM, *Opus de mysterio missæ.* 4to. Pr. Joan. Zainer, of Reutlingen.
- XXXIV. 1473. BUDA, *Cronica Hungarorum.* fol. Pr. Andreas Hess.
- XXXV. 1473. LAUGINGEN, *S. August. de Consensu Evangelistarum.* fol. Printer's name not known.
- XXXVI. 1473. MERSEBURG, *S. August. de Quæstionibus Orosii.* 4to. Pr. Lucas Brandis.
- XXXVII. 1473. ALOST, *Speculum Conversionis Peccator.* 4to. Pr. Theodoricus (or Thierry) Martens.
- XXXVIII. 1473. UTRECHT, *Historia scholastica novi Testam.* fol. Pr. Nicholas Ketelaer, and Ger. de Leempt.
- XXXIX. 1473. LYON, *Lotharii Diaconi Cardinalis Compendium breve.* 4to. Pr. Bartholomæus Buyer.

- XL. 1473. S. URSIO (a small place near Vicenza), *J. Duns Scotus, super tertio sententiarum*. fol. Pr. Joannes de Rheno.
- XLI. 1474. VICENZA, *Dita mundi*. fol. Pr. Leonardus Achates, of Basle.
- XLII. 1474. COMO, *Tractatus de appellationibus*. fol. Pr. Ambrosius de Orcho, and Dionys. de Paravicino.
- XLIII. 1474. TURIN, *Breviarium Romanum*. 8vo. Pr. Joh. Fabri, and Joanninus de Petro.
- XLIV. 1474. GENOA, *Summa Pisanella*. fol. Pr. Mathias Moravus, and Mic. de Monacho.
- XLV. 1474. SAVONA, *Boetius de Consol. philosophiæ*. 4to. Pr. John Bon (BONUS Johannes).
- XLVI. 1474. ESLINGEN, *Th. de Aquino in Job*. fol. Pr. Conradus Fyner.
- XLVII. 1474. BASLE, *Der Sassen Spiegel*. fol. Pr. Bernardus Richel (Bertholdus Rodt).
- XLVIII. 1474. VALLIS SANCTÆ MARIE¹, *Breviarium Moguntin.* 4to. Pr. Fratres vitæ communis.
- XLIX. 1474. VALENCIA, *Obres o Trobes de la S. V. Maria*. 4to. Pr. Alonso Fernandez de Cordova, and Lambert Palmart (1478).
- L. 1474. LOUVAIN, *Commoda ruralia*. fol. Pr. Joanea de Westphalia.
- LI. 1474. WESTMINSTER, *The Game at Chess*. fol. Pr. William Caxton. (Vide *infra*, sect. II. p. 176 et seq.)
- LII. 1475. LUBECK, *Rudimentum Novitiorum*. fol. Pr. Lucas Brandis, of Schass.

¹ Santander conjectures this place to be *Marihausen*, a convent of the brethren of the common life, situated in the Rhingau, a territory belonging to Mayence or Mentz. This order was instituted by Gerard the Great, under the rule of St. Augustin: in addition to the other employments prescribed by their statutes, the members of this fraternity were bound to transcribe the works of the fathers and ecclesiastical authors. As the discovery of printing deprived them of their means of subsistence, these industrious monastics applied themselves to the practice of that art, in order that they might fulfil the spirit of their rule.

- LIII. 1475. BURGDOFF, *Tractatus de Apparitionibus*. fol. Printer's name not known.
- LIV. 1475. BLAUBURREN (or Blaubeuern), *Ob eyn man sey zu nemen Weib, &c.*¹ fol. Pr. Conradus Mancz.
- LV. 1475. CAGLI, *Musei Vegii, de Morte Astianactis*, 4to. Pr. Robertus de Fano and Bernardinus de Bergamo.
- LVI. 1475. CASOLE, *Vitæ Sanctorum*. 4to. Pr. John Fabri.
- LVII. 1475. MODENA, *Virgilius*. fol. Pr. Joan. Vurster.
- LVIII. 1475. PERUGIA, *Verulami de Arte Grammatica*. 4to. Pr. Henricus Clayn of Ulm (1476).
- LIX. 1475. PIE'VE DI SACCO, (a small town belonging to the late republic of Venice), *Quatuor Ordines, hebraice*. fol. Pr. Rabbi Mescullam, surnamed Kotzi.
- LX. 1475. PLACENZA, *Biblia Latina*. 4to. Pr. Petrus de Ferratis.
- LXI. 1475. REGGIO, *R. Salomon Jarchi in Pentateuchum*. fol. Pr. Abraham Garton.
- LXII. 1475. BARCELONA, *Valasti de Tarenta, de Epidemia*. Pr. Nicolaus Spindeler (1478).
- LXIII. 1475. SARAGOSSA, *Multipulus Curatorum*. fol. Pr. Matthæus Flandrus.
- LXIV. 1476. ANTWERP, *Thesaurus Pauperum*. fol. Pr. Theodoricus (or Thierry) Martens of Alost.
- LXV. 1476. BRUGES, *Bocace, du Déchiet des Nobles, &c.* Pr. Colard Mansion.
- LXVI. 1476. BRUSSELS, *Gnotosolitos*². fol. Pr. Fratres vitæ communis.
- LXVII. 1476. NOVA PLZNA (New Pilsen, in Bohemia), *Statuta Symodalia Pragensia*. 4to. Printer's name not known.

¹The title of this work, according to Santander, is, *Alberti Van Eyb, Ob ein man sey zu nemen Weib oder nit*, i. e. Whether a man should take a wife or not? He adds that this little treatise was repeatedly printed in the fifteenth century. Dict. Bib. du 15^e siècle, tom. i. 336, note. Blauburren is a small town in the kingdom of Wirtemberg.

²The title of this work is, *Speculum Conscientiæ, quod Gnotosolitos dicitur*; it is a very thick folio volume, printed in two columns of fifty lines each, and in Gothic characters. Santander has given a very detailed account of it.

- LXVIII. 1476. ROSTOCK, *Lactantii Opera*. fol. Pr. Fratres vitæ communis.
- LXIX. 1476. POLLIANO (or Pogliano, a small place about four miles from Verona), *Petrarcha, degli huomini famosi*. 4to. Pr. Innocentius Ziletus and Felix Antiquarius.
- LXX. 1476. TRENT, *De Obitu Pueri Simonis*, 4to. Pr. Hermannus Schindeleyp.
- LXXI. 1476. DELFT, *Biblia, belgice*. fol. Pr. Jacob Jacobs and Maurice Yemants.
- LXXII. 1477. DEVENTER, *Reductorium Bibliae*. fol. Pr. Richard Paffroet.
- LXXIII. 1477. GOUDA, *Epistelen en Evangelien*. fol. Pr. Gerard Leu or Leuw.
- LXXIV. 1477. ANGERS, *Manipulus Curatorum*. fol. Pr. Joann. de Turre and Joan. de Morelli.
- LXXV. 1477. PALERMO, *Consuetudines Panormi*. 4to. Pr. Andreas de Wormatia.
- LXXVI. 1477. ASCOLI, *Cronica de S. Isidoro Menors*. 4to. Pr. Guillelmus de Linis.
- LXXVII. 1477. LUCCA, *Triumpho di Petrarca*. fol. Pr. Barthol. de Civitali.
- LXXVIII. 1477. SEVILLE, *Sacramentale, sive Catechismus Puero-rum*. 4to. Pr. Anton. Martinez, de la Talla, Bartho. Segura, and Alfonso del Puerto.
- LXXIX. 1478. COSENZA, *Dell' Immortalità dell' Anima*, 4to. Pr. Octavius Salomonius de Manfredonia.
- LXXX. 1478. COLLE, *Dioscorides, latinè*. fol. Pr. Joannes Al-lemanus de Medemblick.
- LXXXI. 1478. CHABLIS, *Le Livre des bonnes moeurs*. fol. Pr. Pierre le Rouge.
- LXXXII. 1478. GENEVA, *Le Livre des Saints Anges*. fol. Pr. Adam Steinschawer, de Schuinfordia (1480).
- LXXXIII. 1478. OXFORD, *Expositio in Simbolum*. 4to. Pr. Theodoricus Rood (1481).—See sect. II. § 2, *infra*.

- LXXXIV. 1478. PRAGUE, *Statuum utraquisticorum Articuli*. fol. Printer's name unknown.
- LXXXV. 1478. MONAST. SORTEN., *Leonardi Aretini Comadia*, &c. fol. Printer's name not known.
- LXXXVI. 1478. EICHSTETT (Neustad), *Summa Hostiensis*. fol. Pr. Michael Reyser.
- LXXXVII. 1479. WURTZBURG, *Breviarium Diocæs. Herbipolensis*. fol. Pr. Stephanus Dold, Jeorius Ryser, and Joan. Bekenhub.
- LXXXVIII. 1479. ZWOLL, *Summulæ Petri Hispani*. fol. Pr. Johannes de Vollehoe.
- LXXXIX. 1479. NIMEGUEN, *Epistola de privilegiis Ord. Mendicant.* 4to. No Printer's name.
- XC. 1479. PIGNEROL, *Boetius de Consolatione Philosophiæ*. fol. Pr. Jacobus de Rubeis.
- XCI. 1479. TUSCULANO, *Æsopi Fabulæ*. 4to. Pr. Gabriel Petri.
- XCII. 1479. TOULOUSE, *Tractatus de jure emphyteotico*. fol. Pr. Joannes Teutonicus.
- XCIII. 1479. POICTIERS, *Breviarium historiale*. 4to. Pr. Joan. Bouyer and Guill. Bouchet (1499).
- XCIV. 1479. SEGORBA, *Constitutiones Synodales*. fol. No Printer's name.
- XCV. 1479. LERIDA, *Breviarium Illerdense*. fol. Pr. Henricus Botel.
- XCVI. 1480. OUDENARDE, *Herm. de Petra Sermones*. fol. Pr. Arnoldus Cesaris.
- XCVII. 1480. HASSELT, *Epistelen en Evangelien*. 4to. No Printer's name.
- XCVIII. 1480. NONANTOLA, *Breviarium Romanum*. 4to. Pr. Georg. & Anselm. de Mischinis.
- XCIX. REGGIO, *Nic. Perotti Rudim. Gram.* 4to. Pr. Barthol. and Laurentius de Bruschi.
- c. 1480. FRIULI, *Platinu de honestâ voluptate*. 4to. Gerardus de Flandria;—probably the same person as Gerardus de Lisa, who printed at Treviso. (See No. xvii. p. 164.)

- CI. 1480. CAEN, *Horatii Epistolæ*. 4to. Pr. Jacobus Durandus and Egidius Quijoue.
- CII. 1480. SAINT ALBANS, *Laurentii Guil. de Saona, Rhetorica nova*. 4to. No Printer's name.—See sect. II. § 4, p. 197.
- CIII. 1481. SALAMANCA, *Nebrixa introductiones Latinæ*. fol. Pr. Leo Alemanus et Lupus Sanz (1496).
- CIV. 1481. LEIPSICK, *Glosa super Apocalipsim*. 4to. Pr. Marcus Brand (1484).
- CV. 1481. CASAL, *Ovidii Epist. Heroides*. fol. Pr. Guil. de Canepa nova, de Campanilibus.
- CVI. 1481. URBINO, *Marii Philelphi Epistolarium*. Pr. Henricus de Colonia (1493).
- CVII. 1481. VIENNE (in France), *Nic. de Clemangis de Lapsu justitiæ*. 4to. Pr. Peter Schenck.
- CVIII. 1481. AURACH (in Wirtemberg), *Leben der Heiligen* (Lives of the Saints). Pr. Conradus Fyner.
- CIX. 1482. AQUILA, *Vita de Plutarcho*. fol. Pr. Adam de Rotwil.
- CX. 1482. ERFURT, *Lutrei quæstiones in libros Arist. de Anima*. 4to. Pr. Paulus Wider de Hornbach.
- CXI. 1482. MEMMINGEN, *Fasciculus temporum*. fol. Pr. Albertus Kunne.
- CXII. 1482. PASSAU, *Epistola de morte S. Hieronimi*. 4to. Pr. Conradus Stahel and Benedictus Mayr.
- CXIII. 1482. REUTLINGEN, *Summa Pisani*. fol. Joh. Otmar.
- CXIV. 1482. VIENNA, *Manipulus Curatorum*. 4to. Pr. Joh. Winterburg (1472).
- CXV. 1482. PROMENTOUR, *Doctrinal de Sapience*. fol. Pr. Louis Guerin.
- CXVI. 1483. MAGDEBURG, *Officium Missæ*. 4to. Pr. Albertus Rauenstein and Joachimus Westval.
- CXVII. 1483. STOCKHOLM, *Dialogus Creaturarum*. 4to. Pr. Joh. Snell.
- CXVIII. 1483. GHENT, *Guillermi Rhetorica divina*. 4to. Arnoldus Cæsaris.
- CXIX. 1483. TROYES, *Breviarium Treccense*. 8vo. Pr. Guil. le Rouge (1492).

- CXX. 1483. SCHIEDAM, *Roman de chevalier Delabere*. 4to. No Printer's name.
- CXXI. 1483. HARLEM, *Formula Novitiorum*. 4to. Pr. Joh. Andriesson¹.
- CXXII. 1483. CULEMBURG, *Speculum humanæ Salvationis*, in Dutch. 4to. Pr. John Veldener.
- CXXIII. 1483. LEYDEN, *Die Cronike van Holland, &c.* 4to. Pr. Heynricus Heynrici.
- CXXIV. 1483. PISA, *Francisci de Accoltis consilia*. Pr. Laurentius and Angelus Florentini (1484).
- CXXV. 1483. GIRONNE, *Memorial del peccador*. fol. Pr. Matthew Vendrell.
- CXXVI. 1484. BOIS-LE-DUC, *Tondalus visioen*. 4to. Pr. Ger. Leempt. de Noviomago (Nimeguen).
- CXXVII. 1484. WINTERPERG (or Winterburg), *Albertus Magnus de Eucharistia*. Pr. Joannes Alacraw.
- CXXVIII. 1484. CHAMBERRI, *Le livre de Baudoyne Comte de Flandre*. fol. Pr. Antonius Neyret.
- CXXIX. 1484. BREAND-LOUDE'HAC (or Loudeac), *le Songe de la Pucelle*. 4to. Pr. Robin Fouquet.
- CXXX. 1484. RENNES, *Costumes de Bretagne*. 12mo. Pr. Pierre Belleesculée and Josses.
- CXXXI. 1484. SIENNA, *Pauli de Castrj Lectura in Sextum codicis*. fol. Pr. Henricus de Colonia.
- CXXXII. 1484. SONCINO, *Delectus Margaritarum, hebraice*. 4to. Pr. Joshua Salomon and partners.
- CXXXIII. 1484. NOVI, *Summa Baptistiniana*. 4to. Pr. Nicol. Girardengus.
- CXXXIV. 1485. HEIDELBERG, *Hugonis de Prato Florido Sermones*. fol. Pr. Fridericus Misch (1488).
- CXXXV. 1485. RATISBON, *Liber Missalis Ratisbonensis*. fol. Pr. John Sensenschmidt, and John Bekenhaub.
- CXXXVI. 1485. VERCELLI (in Piedmont), *Nic. de Auxmo*

¹ The most ancient book, printed at Harlem *with a date*, bears date in 1483; and Santander is of opinion that the art of printing was not practised in Harlem prior to that time.

- Supplementum Summæ Pisanae*. 8vo. Pr. Jacobinus Suigus.
- CXXXVII. 1485. PESCIA, *Le Confessione de S. Bernardino de Siena*. 4to. Pr. FRANC. Cenni.
- CXXXVIII. 1485. UDINO, *Nic. Perotti Rudim. Gram.* 4to. Pr. Gerardus de Flandria.
- CXXXIX. 1485. BURGOS, *Andræ Guterii opus grammaticale*. fol. Pr. Fridericus de Basilea.
- CXL. 1485. ZARAGOZA (or Saragossa), *Epistolas y Evangelios*. fol. Pr. Paulus Hurus.
- CXLI. 1485. SALAMANCA, *Medicinas de la peste*. 4to. Pr. Antonius de Barreda (1498).
- CXLII. 1486. ABBEVILLE, *le Cité de Dieu de St. Augustin*. fol. Pr. Jean Du Pré and Pierre Gerard.
- CXLIII. 1486. BRUNN, *Agenda secundum chorum Olomucense*, 4to. Pr. Conradus Stabel and Matheus Preinlein (1491).
- CXLIV. 1486. MUNSTER, *Rudolphi Langi Carmina*. 4to. Pr. Johannes Limburgus.
- CXLV. 1486. SLESWIC, *Missale Sleswicense*. fol. Pr. Stephanus Arndes.
- CXLVI. 1486. CASALE MAGGIORE, *Machasor* (a book of prayers in Hebrew). 4to. No Printer's name.
- CXLVII. 1486. CHIVASIO, *Angeli de Clavasio Summa*. 4to. Pr. Jacobinus Suigus.
- CXLVIII. 1486. VIQUERIA, (Voghera in Paria ?) *Alex. de Imola Postille* fol. Pr. Jacobus de S. Nazario.
- CXLIX. 1486. TOLEDO, *Petri Ximenez Confutatorium*. 4to. Pr. Joannes Vasqui (Vasquez).
- CL. 1487. BESANÇON, *Liber de Pestilentia*. 4to. John Comtel.
- CLI. 1487. GAETA, *Formulario epistolare*. 4to. Pr. A. F. (Andreas Fritag.)
- CLII. 1487. VALERIA, *El Valerio de las Hist. de Espana*. fol. Pr. Juan de Roca.
- CLIII. 1487. ROUEN, *Croniques de Normandie*. fol. Pr. Guillaume le Talleur.

- CLIV. 1487. ISCHAR, (Ixar, in Arragon?) *Ordo Arba Turim, hebraice*. fol. Pr. Eliezer filius Alanta¹.
- CLV. 1488. VITERBO, *Servii Honorati de metrorum generibus*. 8vo. No Printer's name.
- CLVI. 1489. HAGENAU, *Cornutus Joan. Garlandia*. 4to. Pr. Henricus Gran.
- CLVII. 1489. KUTTENBERG, *Biblia (Bohemice)*. fol. Pr. Martin Van Tischiniowa.
- CLVIII. 1489. LERIDA, *Petri de Castrovol. in libros Nat. Arist.* fol. No Printer's name.
- CLIX. 1489. SAN CUCUFATE DEL VALLES (near Barcelona), *El Abad Isach de Religione*. 4to. No Printer's name.
- CLX. 1489. LISBON, *Rabbi Moses Nachmanides in Pentateuchum*, (Hebr.) fol. Pr. Samuel Zorba and Raban Eliezer.
- CLXI. 1490. ORLEANS, *Manipulus curatorum*. 4to. Pr. Matthew Vivian.
- CLXII. 1490. INGOLSTADT, *Rosarium celestis curiæ*. fol. Pr. Joan. Kachelofen.
- CLXIII. 1490. PORTO (a town in the Venetian territory), *Statuta Commun. Ripperia*. fol. Pr. Barthol. Zanni.
- CLXIV. 1490. ZAMORA, *Los Evangelios desde Aviento*, etc. fol. No Printer's name.
- CLXV. 1491. DIJON, *Cistercii Ordinis Privilegia*. 4to. Pr. Petrus Metlinger.
- CLXVI. 1491. ANGOULEME, *Auctores VIII.; Cato, Facetus*, etc. 4to. No Printer's name.
- CLXVII. 1491. HAMBURGH, *Laudes B. M. Virginis*, fol. Pr. Joh. and Thomas Borchard.
- CLXVIII. 1491. NOZANI, *P. Turretini Disputatio juris*. fol. Henricus de Colonia and Henricus de Harlem.
- CLXIX. 1492. DOLE, *Joan. Heberling de Epidemia*. 4to. No Printer's name.
- CLXX. 1492. LEIRIA, *Proverbia Salomonis*, (Hebr.) 4to. Pr. Abraham Dortas.

¹ In the table of cities where printing was first introduced, Santander (vol. III. p. 520) assigns 1485 as the date when the art was first practised at Ixar, and mentions *Jacobi Benascher liber semitæ vitæ*, Hebr. fol. as the first book, the printer's name of which is not known.

- CLXXI. 1492. TZENNA (or Zinna, in Saxony), *Psalterium B. M. Virg.* 4to. No Printer's name.
- CLXXII. 1493. ALBA, *Alex. de Villa doctrinale.* fol. No Printer's name.
- CLXXIII. 1493. CLUGNY, *Missale Cluniacense.* fol. Pr. Michael Wenssler.
- CLXXIV. 1493. FRIBURG, *S. Bonav. in IV. sentent.* fol. Pr. Kilianus Piscator.
- CLXXV. 1493. LUNENBURG, *Tho. à Kempis de Imit. Christi.* 8vo. Pr. Joan. Luce.
- CLXXVI. 1493. NANTES, *Les Lunettes des Princes.* 8vo. Pr. Etienne Larcher.
- CLXXVII. 1493. COPENHAGEN, *Regulæ de fig. Construct. Grammat.* 4to. Pr. Gothofridus de Ghemen.
- CLXXVIII. 1493. VALLADOLID, *Notas del Relator.* fol. Pr. Joannes de Francour.
- CLXXIX. 1494. OPPENHEIM, *Wigandi Wirt Dialogus Apolog.* etc. 4to. No Printer's name.
- CLXXX. 1495. FORLI, *Nic. Ferretti de Eleg. ling. lat. servanda.* 4to. Pr. Hieronymus Medesanus.
- CLXXXI. 1495. FREISINGEN, *Compendiosa Mat. pro juven. Informatione.* 4to. Pr. Joann. Schaeffler.
- CLXXXII. 1495. LIMOGES, *Breviarium Lemovicense.* 8vo. Pr. Joan. Berton.
- CLXXXIII. 1495. SCANDIANO, *Appiani Historia.* fol. Pr. Peregrinus de Pasqualibus.
- CLXXXIV. 1495. SCHOENHOVEN, *Breviarium Trajectensis Ecclesie.* fol. No Printer's name.
- CLXXXV. 1496. BARCO, *Selicoth, seu Preces pro remissione Peccatorum.* fol. Pr. Gerson fil. R. Mosis Mentzlan.
- CLXXXVI. 1496. OFFENBURG, *Quadragesimale de Litio.* 4to. No Printer's name.
- CLXXXVII. 1496. PROVINS, *La Règle des Marchands.* 4to. Pr. Guil. Tavernier.
- CLXXXVIII. 1496. TOURS, *La Vie de St. Martin.* fol. Pr. Matth. Lateron.

- CLXXXIX. 1496. PAMPALUNA, *Petri de Castrarle sup. Lib. Yconom. Arist.* fol. Pr. Arnoldus Guillen.
- CXC. 1497. GRANADA, *Franc. Ximenes de vita Christiana.* fol. Pr. Menardus Ungut.
- CXCI. 1497. AVIGNON, *Luciani Palinurus, etc.* 4to. Pr. Nicol. Lepe.
- CXCII. 1497. CARMAGNOLE, *Facini Tibergæ in Alex. de Villa interpretatio.* fol. No Printer's name.
- CXCIII. 1497. TUBINGEN, *Lectura Fr. Pauli in primum senten.* fol. Pr. Joan. Ottmar.
- CXCIV. 1499. TREGUIER (in Bretagne), the *Catholicon*, in Breton, French, and Latin. fol. No Printer's name.
- CXCV. 1499. MONTERRAT, *Missale Benedictinum.* fol. Pr. Joan. Luchner Alemannus.
- CXCVI. 1499. TARRAGONA, *Missale Tarraconense.* fol. Pr. Joh. de Rosembach.
- CXCVII. 1500. CRACOW, *Ciceronis Rhetor. Lib. IV.* 4to. Pr. (Joannes Haller.)
- CXCVIII. 1500. MUNICH, *Ang. Mundii Oratio.* 4to. Pr. Joannes Schobser.
- CXCIX. (1500.) AMSTERDAM, *Dionysius de Conversione Peccatoris.* 8vo. Pr. D. Pietersoen.
- CC. 1500. OLMUTZ, *Aug. de Olomvoz contra Waldenses.* 4to. Pr. Conradus Bomgathem.
- CCI. 1500. PFORTZHEIM (in Suabia), *Joan. Altenstaig Vocabularius.* Pr. Thomas Anselmus Badensis.
- CCII. 1500. PERPIGNAN, *Breviarium Elnense.* 8vo. Pr. J. Rosembach de Heidelberg.
- CCIII. (1500.) JAEN (or Gien, in the department of Loiret), *Petri Dagui tractatus de Differentiis.* Printer's name unknown.
- CCIV. (1475.) SAVILLANO, *Manipulus Curatorum,* fol. Pr. Christ. Beggiamo and J. Glein.
- CCV. (1500.) ALBIA, *Encæ Sylvi de amoris remedio.* 4to. No Printer's name.
- CCVI. (1500.) RHENEN, *Dat Leeven van H. Maget, S. Kunera.* 4to. No Printer's name.
- CCVII. (1500.) AMSTERDAM, *Dionysius de Conversione Peccatoris.* 8vo. Pr. D. Pieteron.

Of the following places, the impressions related by some Bibliographers, are by Santander considered as apocryphal. The printers' names and dates are given from Mattaire and Panzer, where they could be ascertained.

| Cities. | Printers' Names. | Date of first Printers. |
|---------------------------------------|-------------------|-------------------------|
| Bergamo, in the Venetian States, | Anonymous. | 1498. |
| Capua, in the kingdom of Naples, | ————— | ————— |
| Constance, | Anonymous. | 1489. |
| Constantinople, | Anonymous. | 1490. |
| Gradisca, in Hungary, . . . | ————— | ————— |
| Halle, in Swabia, | ————— | ————— |
| Lignitz [Lignis], in Silesia, . . | Anonymous. | 1481. |
| Madrid, | Anonymous. | 1494. |
| Ortona, in the kingdom of Naples, | Judæi Soncinates. | 1496. |
| Palencia, an episcopal city in Spain, | ————— | ————— |
| Pesaro, in the duchy of Urbino, | Anonymous. | 1494. |
| Rimini, in the Romagna, . . . | Anonymous. | 1486. |
| Salonichi (or Thessalonica). . . | Anonymous. | 1495. |
| Valladolid, in Old Castile, . . . | ————— | ————— |
| Wittenberg, in Upper Saxony, . . | ————— | ————— |

SECTION II.

Progress of Printing in England.

§ 1.—*Establishment of Printing in Westminster and London, by W. Caxton, and his Successors.*

ALL our historians and other writers, who flourished in or near the time when typography was discovered, and who mention the intro-

duction of the art into England, unanimously ascribe that honour to William Caxton, citizen and mercer, of London. His claim continued undisputed, for nearly two centuries, until the year 1642; when a dispute arose between some persons, who printed by virtue of a patent from the crown, and the Company of Stationers, respecting the patents. A committee was appointed, who heard counsel for and against the petitioners; and in the course of the pleadings Caxton was acknowledged incontestibly as the first printer in England. A small volume however was discovered soon after the Restoration, in the public library at Cambridge, purporting to be printed at Oxford in 1468; and which, by some antiquarians, is considered as a decisive proof that the art of printing was exercised in that University, several years before it was practised at any other place in England.

The book is a small quarto, containing forty-one leaves, with this title: *Expositio Sancti Jeronimi in Simbolum Apostolorum ad Papam Laurentium*. And at the end, *Explicit expositio, &c. Impressa Oxonie et finita Anno Domini M.CCCC.LXVIII. xvii die Decembris*. But this date, as will be shewn in a subsequent page, is an error for M.CCCC.LXXVIII. and consequently the book could not have been printed by Corsellis.

The claim of Corsellis to the introduction of printing was not asserted till the year 1664; when Richard Atkyns, a patentee under the crown for printing, having a dispute with the Stationers' Company, attempted to deprive Caxton of that honour in a thin quarto volume, intituled: "*The Original and Growth of Printing, collected out of History and the Records of the Kingdome: wherein is also demonstrated, that Printing appertaineth to the Prerogative Royal, and is a Flower of the Crown of England. By Richard Atkyns, Esq.*" The design of this pamphlet was to give the right and title of printing to the crown, and by that means to ascertain the validity of the patents which had been granted by the crown. To support this argument, Atkyns pretended to have received of an anonymous friend, a copy of an antient record, which had been discovered at Lambeth House, in the registry of the archiepiscopal see. The substance of this Lambeth record (which is pompously written) may thus be briefly stated. King Henry VI. at the suggestion of archbishop Bouchier, having determined to introduce the art of printing into England, and knowing that it could not be effected without great secrecy and a considerable sum of money, he appropriated first 1000 marks, and afterwards 500 more, to which the archbishop

added 300 marks in aid of the expense. Mr. Robert Túrnow, then master of the robes to the king, was appointed commissioner; he took with him William Caxton, who being a trader to Holland, afforded a good pretence for the journey. Accordingly, they accomplished their object; Frederick Corseillis (or Corsellis), one of the under-workmen, stole off from Haerlem in disguise, and was first brought to London, whence he was sent to Oxford under a strong guard, until he had accomplished his engagement of communicating the art of printing.

On the authority of this pretended record, most of our later writers have declared Corsellis to be the first printer in England: but several weighty objections to its evidence have been brought by Dr. Middleton, which we think conclusive against Corsellis, and consequently in favour of Caxton. They are deduced, first from the suppositious record, and secondly from an examination of the book itself.

FIRST, AS TO THE RECORD.

1. The fact is laid quite wrong as to time; near the end of Henry the Sixth's reign, in the very heat of the civil wars, when it is not credible that a prince, struggling for life as well as his crown, should have leisure or disposition to attend to a project, which could hardly be

thought of, much less executed, in times of such calamity. "The printer" (it is said) "was graciously received by the king, made one of his sworn servants, and sent down to Oxford with a guard," &c. all which must have passed before the year 1459: for Edward IV. was proclaimed in London, in the end of it, (according to our computation on the fourth of March) and was crowned about the Midsummer following; and yet we have no fruit of all this labour and expense, till nearly ten years after, when the *Symbolum* is supposed to have been published from the Oxford press.

2. The silence of Caxton concerning a fact, in which he is said to be a principal actor, is a sufficient confutation of it: for, in the prefaces or conclusions of his works, he constantly gives an historical account of his labours and transactions, as far as they related to the publishing and printing of books. A still stronger circumstance is, that, in the Continuation of the Polychronicon (compiled by himself, and carried down to the end of Henry the Sixth's reign), he makes no mention of the expedition in quest of a printer; which he could not have omitted, had it been true: while in the same book he takes notice of the invention and beginning of printing in the city of Mentz.

There is a further circumstance in Caxton's

history, that seems inconsistent with the record : for we find him still beyond sea, almost twelve years after the supposed transaction, learning with great charge and trouble the art of printing¹, which he might have done with ease at home, if he had had Corsellis in his power, as the record imports, so many years before. Dr. Middleton thinks he acquired it at Cologne, where he resided in 1471, and whence books had first been printed with a date, in the preceding year. To the silence of Caxton may be added that of the Dutch writers : for it is very strange (as Chevillier observes), if the story of the record be true, that Hadrian Junius should never have heard of it, who has collected all the groundless fables which favour the pretensions of Haerlem². But,

3. The most direct and internal proof of its forgery is, its ascribing the origin of printing to Haerlem, where John Gutenberg, the inventor, is said to have been personally at work, when Corsellis was brought away, and the art itself to have been first carried to Mentz by a brother of one of Gutenberg's workmen : for it is certain beyond all doubt, that printing was first invented and propagated from Mentz. Caxton's testimony alone seems to be decisive ; who, in

¹ Recuyell of the Historyes of Troye, in the end of the second and third books.

² L'Origine de l'Imprimerie de Paris, c. i. p. 25.

the Continuation of the Polychronicon, says ¹, “ About this time (the year 1455) the crafter of empyrting was first found in Mogounce, in Almayne,” &c. He was abroad in the very country, and at the time, when the first idea of it was conceived, and the rudest typographical essays were attempted: he continued there for thirty years, from 1441 to 1471; and, as he was particularly curious and inquisitive after this new art, of which he was endeavouring to obtain perfect information, he could not be ignorant of the place where it was first exercised.

But, beside the evidence of Caxton, we have another contemporary authority, in the *Black Book*, or Register of the Garter; where it is said, in the thirty-fifth year of Henry VI. (1547), “ In this year of our most pious king, the art of printing bookes first began at Mentz, a famous city of Germany ².” Fabian also, the author of the Chronicle, and a contemporary of Caxton’s, says, “ This yere (viz. 35 Henry VI.) after the opynyon of diverse writers, began in a citie of Almaine, namyd Mogunce, the crafter of empyrtynge bokys, which sen that tyme hath had wonderful encrease.”

4. As the Lambeth record was never heard of before the publication of Atkyns’s book, so it has never since been seen or produced by any

¹ Fol. 433.

² Anstis’s Hist. of the Order of the Garter, vol. ii. p. 161.

person, though particular search for it has, on many occasions, been most diligently made. They were doubtless very carefully examined by archbishop Parker, when compiling his *Antiquities of the British Church*: where, in the life of Thomas Bouchier, though he congratulates that age on the noble and useful invention of printing, yet he is silent as to its introduction into England by that archbishop¹. On the contrary, his ascribing the honour of the invention to Strasburg, clearly shews that he was ignorant of the story relative to the conveyance of *Corsellis* from Haerlem; and that the record was not in existence in his time. Palmer admits that "it is not to be found there now: for that the late earl of Pembroke assured him, that he had employed a person for some time to search for it, but in vain²."

On these grounds then we may pronounce the record to be a forgery, notwithstanding the attempts made to support its credit, and to represent it as an authentic document.

Atkyns (Dr. Middleton further remarks), who by his manner of writing seems to have been a bold and vain man, might possibly be the in-

¹ Godwin (*de Præsulibus Angliæ*, p. 129) in his life of Bouchier is also silent as to his supposed co-operation in this design; and accounts for the little done by him for posterity, by the circumstance of the turbulent times in which he lived.

² *Hist. of English Printing*, p. 314.

ventor : for he had an interest in imposing it upon the world, in order to confirm the argument of his book, that printing was of the prerogative royal, in opposition to the Company of Stationers, with whom he was engaged in an expensive lawsuit in defence of the king's patents, under which he claimed some exclusive powers of printing. For he tells us, that, "upon considering the thing, he could not but think that a publick person, more eminent than a mercer, and a publick purse, must needs be concerned in so publick a good ; and, the more he considered, the more inquisitive he was to find out the truth¹." So that he had formed his hypothesis before he had found his record, which he published, he says, "as a friend to truth, and not to suffer one man to be intituled to the worthy atchievements of another ; and as a friend to himself, not to lose one of his best arguments, of intituling the king to this art." If, however, Atkyns was not himself the contriver, he was at least imposed upon by some more crafty person, who imagined that his interest in the cause, and his warmth in prosecuting it, would induce him to receive as genuine whatever might be offered to him of the kind².

¹ Atkyns's *Original and Growth of Printing*, p. 3.

² See Dr. Middleton's *Dissertation concerning the Origin of Printing in England*, 4to. Camb. 1735. pp. 3—7.

The claims of Corsellis to the honour of introducing typography into England being thus exploded, it only remains briefly to consider the evidence in favour of Caxton,

SECONDLY, FROM THE EXPOSITIO ITSELF.

The date at the end of the book purports to be M.D.CCCC.LXVIII. six years before the execution of any book by Caxton with a date. Dr. Middleton considers it to have originally been falsified by the printer, either by design or mistake, and an x to have been dropped or omitted in the age of its impression. 196

Mistakes in dates are by no means unfrequent in the early years of printing. Mattaire, Chevillier, Orlandi, Dr. Middleton, Santander, and other Bibliographers, have given several instances of such errors. A few are subjoined for the information of the bibliographical student. *Pii II. Papiæ Epistolæ*, fol. *Coloniæ*, J. Koelhoff, M.CCCC.LXVIII. instead of M.CCCC.LXXVIII. *Francisci Mataratii de componendis versibus opusculum*, fol. *Venetiis*, Erh. Ratdolt, M.CCCC.LXVIII. for M.CCCC.LXXVIII. *Libellus de modo Confitendi*, *Antuerpiæ*, Ger. Leeu, 8vo. M.CCCC. for M.CCCC.XC. or M.CCCCC. &c. &c.¹

¹ Mistakes in dates are not confined to early printing; Dr. Middleton mentions a curious modern instance of the same error, in the *Inauguration Speech* of the Woodwardian Professor (Mr. Mason), printed at Cambridge with a date ten

These instances, with many more that might be collected, shew the possibility of Dr. Middleton's conjecture; for the probability of which the *Exposicio* itself affords abundant proof. But the strongest objection to its being printed by Corsellis is, that it is said to be printed with wooden types or blocks. Herbert both saw and carefully examined the book; and has given it not only as his own opinion, but also as the judgment of the most eminent printers to whom he shewed it, that it is printed with separate fusile metal types, and not on wooden blocks.—If the fac-simile of the colophon given by Herbert be correct (from which the subjoined specimen is accurately copied),

*Explicit exposicio sancti Jeronimi in
 simbolo apostolorum ad papam laurentium
 Impressa Oxonie Et finita Anno domini . M . cccc . lxxviii . xvij . die
 Decembris .*

the *Exposicio* is executed with as beautiful a type as any with which we are acquainted from the most eminent printer of that age.

But, independently of the neatness of the letter and the regularity of the page, &c. the years earlier than it should have been, viz. *M.DCC.XXIV.* for *M.DCC.XXXIV.*;—"the very blunder exemplified in the (then) last piece printed at Cambridge, which Dr. M. supposes to have happened in the first from Oxford."—*Dissertation, &c.* p. 8.

appearance of signatures (which were not invented before the year 1472¹), sufficiently confutes the date of the Oxford book: and an additional proof that its date is erroneous is, that we have no other production from the Oxford press for the eleven following years. Now, it is not to be supposed that a press, established with so much pains and expense as the pretended Lambeth record would seem to indicate, could be suffered to remain so long unemployed and useless: whereas, if the preceding remarks on its erroneous date be correct, all the difficulties relative to the supposed æra of printing at Oxford are completely obviated; so that the honour of introducing the art of printing into England may now be considered as indisputably due to Caxton.

William Caxton, the father of English printing, is supposed to have been born about the year 1412: between his fifteenth and eighteenth year he was apprenticed to William Large, an opulent mercer or merchant of London; who was so satisfied with the fidelity of his servant, that he left him a legacy of twenty marks,—a considerable sum in those days.

It is pretty certain (Mr. Dibdin observes) that

¹ Signatures were invented by John Koelhof, at Cologne. See an account of their uses, *infra*, Part II. chap. II. sect. 1.

mercers, in the time of Caxton, were general merchants, trading in all kinds of goods, and that they united a love of literature and of books with their other multifarious concerns. Hence, probably, Caxton acquired his passion for books and learning,—a passion which never seems to have deserted him.

On the termination of his apprenticeship, he went into the Low Countries, in 1442, either on his own account, or as agent to some merchants; and resided abroad about thirty years. In 1464, he was appointed by Edward IV. his ambassador (in conjunction with Richard Whetenhall) to negotiate a treaty of commerce with the Duke of Burgundy, Edward's brother-in-law. During his residence in these countries, Caxton acquired the knowledge of printing, the learning of which was facilitated by his commercial character: and his taste for literature could not but be increased in the polished court of the Duke of Burgundy, where he probably improved himself in the French language, from which he afterwards made so many translations. Here he became acquainted with Raoul Le Fevre, chaplain to the Duke of Burgundy, whose *Recuyell of the Historyes of Troye* he began to translate in 1468, and afterwards published his English version, in 1471, at the request of his patroness, Margaret, Duchess

of Burgundy. The original of this work was the first book Caxton printed¹: the "Oration of John Russel, on Charles Duke of Burgundy being created a Knight of the Garter," (which ceremony took place in 1469) was the second; and the translation of the Recuyell was the third book which issued from his press.

Of Caxton's typographical labours between the years 1471 and 1474, we have no recorded account: neither has any information been obtained of the exact period when he returned to England and introduced the art of printing into the metropolis. Thus much, however, is certain: that, previously to the year 1477, Caxton had quitted the Low Countries, and taken up his residence in the vicinity of Westminster Abbey; when Thomas Milling, Bishop of Hereford, held the abbotship of St. Peter's in *Commendam*. Caxton had, no doubt, brought over with him the necessary materials and implements of his trade. The particular spot where Caxton first exercised his business, or the place where his press was fixed, cannot now be exactly known: Mr. Dibdin, after an elaborate examination of conflicting testimonies, thinks it more probable

¹This work is unknown to German Bibliographers; and was printed in 1464-7. It is copiously described by Mr. Dibdin in the first volume of his *Typographical Antiquities*, from which the present concise account of this father of English typography is abridged.

that Caxton, after the manner observed in other monasteries, erected his press near one of the chapels' attached to Westminster Abbey: and as no remains of this once interesting place can now be ascertained, there is a strong presump-

“ Each printer hence, howe'er unblest'd his walls,
 “ E'en to this day his house a CHAPEL calls.”

Mr. M'Creery's Poem, *The Press*, p. 18.

“ The title of *chapel* to the internal regulations of a printing-office, originated in Caxton's exercising the profession in one of the chapels in Westminster-Abbey; and may be considered as an additional proof, from the antiquity of the custom, of his being the first English printer. In extensive houses, where many workmen are employed, the *calling a chapel* is a business of great importance, and generally takes place when any member of the office has a complaint to allege against any of his fellow-workmen: the first intimation of which he makes to the *father of the Chapel*, usually the oldest printer in the house: who, should he conceive that the charge can be substantiated, and that the injury supposed to have been received, is of such magnitude as to call for the interference of the law, summonses the members of the *chapel* before him at the *imposing-stone*, and there receives the allegation and the defence in solemn assembly, and dispenses justice with typographical rigour and impartiality. These trials, though they are sources of neglect of business and other irregularities, often afford scenes of genuine humour. The punishment generally consists in the criminal providing a libation, by which the offending workman may wash away the stain that his misconduct has laid upon the body at large. Should the plaintiff not be able to substantiate his charge, the fine then falls upon himself for having maliciously arraigned his companion; a mode of practice which is marked with the features of sound policy, as it never loses sight of the good of the chapel.”—*Ibid.* (notes) p. 15.

tion that it was pulled down in making alterations for the building of Henry VII.'s splendid chapel.

The first book printed by Caxton at Westminster is generally allowed to be the *Game of Chess*, in 1474. Mr. Dibdin, however, suspects it to have been printed abroad; and if it was not executed here, he thinks it more probable that the *Romance of Jason* was the earliest specimen of his press in the Abbey. He continued for many years to cultivate his important art: and, exclusive of the labours attached to the working of his press, our typographer contrived (though "well stricken in years") to translate not fewer than five thousand closely printed folio pages; and, as Oldys quaintly expresses it, "he kept preparing copy for the press to the very last!"¹ From the evidence of Wynkyn De Worde, in the colophon of his edition of the *Vitas Patrum*, 1495, it appears that these Lives of the Fathers were "translated out of French into English, by William Caxton, of Westminster, late dead;" and that "he finished it at the last day of his life." He might have chosen this work as his final literary effort, from a consideration, according to Oldys, that "from the examples of quiet and solemn retirement therein set forth, it might

¹ For specimens of Caxton's types, together with observations on his style of printing, see Sect. VII. *infra*.

farther serve to wean his mind from all worldly attachments, exalt it above the solitudes of this life, and inure him to that repose and tranquillity with which he seems to have designed it¹." The productions of Caxton's press are sixty-four in number.

Though Caxton was the *earliest*, he was not the only printer in England, in the period during which he flourished. John Lettou, William de Machlinia, and Wynkyn De Worde, and others, printed in Westminster and London, both before and after his decease.

1. *John Lettou* printed at London in 1480 and 1481: he is supposed from his name to have been a foreigner (of what country is uncertain), and to have come over to England, by Caxton's encouragement, from some part of Germany, to settle and promote the art of printing in this kingdom. If Lettou acquired the art of printing abroad, Mr. Dibdin thinks he came over to this country for want of employment on the continent, from his extreme unskilfulness in the typographic art. Two works only were printed by him (in 1480 and 1481), with rude and broken types, before he was taken into Machlinia's of-

¹ Dibdin's "Typographical Antiquities," vol. i. p. cx. The following account of the establishment of printing in England, is abridged from the same work, and from Herbert's edition of Ames's "Typographical Antiquities."

fice, "chiefly with a view of obtaining support in the humble capacity of a labourer."

2. *William Machlinia* printed in London, in partnership with Lettou, in 1481, and afterwards alone, in 1483: he is supposed to have derived his name from the city of Mechlin (Malines) in Flanders. *Eleven* works, the productions of his press, are described by Mr. Dibdin.

3. *Wynkyn de Worde* was one of the most distinguished printers in England in the fifteenth century, not only for the neatness and elegance of his types, but also for the number and variety of books printed by him, and which amount to 408. He was a native of the duchy of Lorraine, and in all probability was one of Caxton's assistants or workmen when the latter was resident at Bruges or Cologne: but without doubt was employed in the office of our first printer till his death in 1491-2, when he commenced business on his own account. *Wynkyn de Worde* first carried on business in Westminster, in Caxton's house (whose real successor he may justly be considered); whence, some time between the years 1500 and 1502, he removed to Fleet Street, where he continued his prosperous typographical career at the *Sign of the Sun in the Parish of St. Bride's*, from 1502 till his death in 1534.

4. *Richard Pynson* (or Pinson), by birth a Norman, exercised the art of printing from

1493 to 1531; and consequently was contemporary with Wynkyn de Worde, if he was not a more antient printer than the latter. He was the first who assumed the title of "King's Printer;" though it does not appear that he had any patent for this office. It is not known whether Pynson died in 1531, or only retired from business. The known productions of his press amount to two hundred and ten.

5. *Julian Notary* printed first at Westminster (in King Street) from 1499 to 1503, in which year he removed to St. Clement's Parish, and established himself "*without Temple Bar,*" at the sign of the *Three Kings*. Julian Notary afterwards removed to St. Paul's Church-yard, where he assumed the same sign. The whole of his typographical biography is exceedingly obscure and unsatisfactory: the period of his death is unknown; the works printed by him are twenty-three in number.

§ 2.—*Establishment of Printing at Oxford, A. D. 1478.*

The claim of Oxford to the honour of being the first city in England, where printing was introduced, having already been disproved, it will be sufficient here to refer the student to our first Section (p. 177–187), and further to state, that the *Exposicio Sancti Jeronimi* (the first printed book) appeared in 1478. In addition to our former

remarks on this work, it may be observed that the book is printed with fusile metal types, and has several double letters and contractions; the long f is frequently used at the end of words. The paper has different marks, somewhat like those which Caxton printed on, and also has a large margin. The leaves are not numbered; there are neither running titles nor catch-words; nor does either printer's name or cipher occur. For a specimen of the type of this curious production, see page 186, *supra*¹.

Theodore Rood and Thomas Hunt were the first printers at Oxford: the former was a German;—the latter an Englishman. The first production of their press was “*Francisci Arétini Oratoris Phalaridis Epistolarum e Greco in Latinum versio*”². Herbert assigns its date to the year 1485.

§ 3.—*Establishment of Printing at Cambridge (A. D. 1478?)*

The art of printing is supposed to have reached

¹Three copies only are known to be in existence of the much contested *Expositio*, in the Bodleian Library at Oxford, the Public Library at Cambridge, and in His Majesty's Library. Though Mr. Dibdin calls Caxton the first printer in England, he fully believes in the genuineness of the date of the Oxford book, and announces his intention of analysing it, as well as the controversy respecting it. (Typog. Ant. vol. i. p. lxxv.) The observations of so experienced a bibliographer cannot fail to illustrate this disputed subject.

²Herbert's Typog. Ant. vol. iii. p. 1395.

Cambridge soon after its introduction from the Continent; though it is difficult to ascertain the first printed book, or the typographer from whose press it issued. The earliest known work with date (according to Ames and Herbert) was an edition of the *Rhetorica nova Fratris Laur. Gul. de Saona*, in folio: it has no catch-words or signatures, nor are the pages numbered. The types very much resemble Caxton's largest.

The first printer who settled at Cambridge, (whose name has been recorded) was John Sibert or Siberch: he is supposed to have been a native of Lyon, and was the first who printed in Greek *and* Latin in England. His books are dated 1521 and 1522¹: but although they exhibit much Greek letter, there is not one that is wholly in that character.

§ 4.—*Establishment of Printing at St. Alban's, A. D. 1480.*

While Caxton was regularly putting forth specimens of the Westminster press, the art of printing began to be exercised, in 1480, in the Benedictine monastery at St. Alban's in the county of Hertford, under the priorate of William Wallingford. Sir Henry Chauncy, whimsically enough, calls the printer who first exercised the art here by the name of JOHN INSO-MUCH, from no better authority, it would seem,

¹ Herbert's *Typog. Ant.* pp. 1411, 1412.

than because the three first words of the prologue to the *St. Alban's Chronicle* of 1483, are as follow, “*In so myche!*”¹ That he was a monk is very probable; and that he was “sometime a schoolmaster” is expressly stated by Wynkyn de Worde in the colophon, to his edition of the *St. Alban's Chronicle* of 1497.

The earliest book printed at St. Alban's is the *Rhetorica nova Fratris Laur. Gul. de Saona*, in small quarto: the types are very rude, and Mr. Dibdin thinks were probably imported from Flanders².

At the commencement of the sixteenth century, the art of printing was so rapidly diffused through Europe, that it would exceed the limits necessarily assigned to this sketch of its history, were we to attempt to detail its progress. A few particulars, however, have been preserved of the

¹ Dibdin's *Typog. Ant.* vol. i. pp. civ, cv. Mr. Newcome has confounded this printer (whatever was his name) with John Hertford, who was established at St. Alban's about half a century afterwards, and printed *The Lyfe and Passion of Seint Alban*, as it had been translated from the French and Latin by John Lydgate, the celebrated monk of Bury. Newcome's *Hist. of St. Alban's*, p. 399. Herbert's edit. of Ames, vol. iii. pp. 1430—1432.

² John Hertford, in 1556, endeavoured to revive the art in *his place*, by printing several books; but not finding it to *answer* his expectations, he removed, in 1558, to Aldersgate *street*, London.

introduction of printing into some of our provincial towns; which the reader may not be displeased to find chronologically recorded from Herbert¹.

§ 5. 1509. YORK.—Bagford's Papers mention, that in the time of Henry VII. there was one who printed a proclamation upon *vellum*: it is to be regretted that its date has not been ascertained.—The first production of the York press was the *Pica* of the Cathedral Church by Hugh Goes².

§ 6. 1514. SOUTHWARK.—The first book was *Disticha Moralia Catonis*, with Erasmus's scholia, printed by Peter de Treveris or Triers; who most probably was a native of the episcopal city of that name in Germany.

§ 7. 1525. TAVISTOCK, (co. Devon.)—Here was an exempt monastery, celebrated for its lectures on the Saxon language; which were discontinued about the period of the Reformation. Several of its abbots were learned men: and the encouragement they gave to literature is evident

¹ Vol. iii, pp. 1437, *et seq.*

² Goes is said by Herbert to have printed at Beverley, in the county of York, a *broadside*,—being a wood-cut of a man on horseback, with a spear in his right hand and the arms of France in his left.—“ Emprynted at Beverlay in the Highgate, by me HEWE GOES,” with his mark of a great **H**, and a goose.

by the establishment of a printing-press, within a few years after its introduction into England. The first printed book was John Waltwne (or Walton)'s translation of *Boetius de Consolatione*, in quarto: the printer's name was Thomas Ry-chard a monk of that monastery.

§ 8. (About) 1525. CANTERBURY.—The first book supposed to be printed here was, “A goodly Narration how St. Augustine (the Apostle of England) rayed two dead bodies at Long Comptō, collected out of diuers authors, translated by Joh. Lydgate, monke of Bury, Pri. at St Austen's in Canterburie,” in quarto. No printer's name or date; but Lewis¹ conjectures it to be about 1525.

§ 9. 1538. IPSWICH.—Cardinal Wolsey patronized a printing-house at Ipswich, in the year 1538, where business was carried on by John Oswen. In 1548 John Overton printed in this city; and Anthony Scoloker, from London, resided here for some time. His first work was “The just reckenyng or accompt of the whole number of the yeares, from the beginnyng of the world vnto this present yere of 1547.” &c. “Translated out of Germaine Tongue by Anthony Scoloker, the 6 day of July, 1547.”

§ 10. 1548. WORCESTER.—John Oswen, who first printed at Ipswich, settled at Worcester,

¹ Life of Caxton, p. 115.

about 1548, in which year he put forth a folio and quarto edition of the New Testament.

§ 11. 1570. NORWICH.—The art of printing was introduced into this city, according to Blomefield¹, in 1570, by Antony Solen², (a Fleming); which was so well approved of by the city, that he was presented with his freedom: but in the seventh volume of the “Harleian Miscellany,” it is asserted that Francis Burges was the first printer who carried the art to Norwich. He published (Sept. 27, 1701,) an octavo pamphlet of seventeen pages, intituled “Some Observations on the use and original of the noble art and mystery of printing;”³ in order to vindicate himself from the charge of having brought an additional expense to the city, and injuring the trading interest, &c. As Blomefield quotes the antient Book of the Freemen’s Admissions, it is most probable that the art was introduced in 1570, but had been discontinued, and was re-introduced by Burges in 1701.

§ 12. (1587?) WALES.—John Thackwell is said to have printed in Wales, about the year 1587; but, of the place where he exercised his

¹ Blomefield’s History of Norfolk, vol. iii. p. 295. (octavo edit.)

² Anthony de Solempne is noticed, as a printer at Norwich, in the Appendix to Leland’s *Collectanea*, Part II. vol. vi. p. 41.

³ This tract is reprinted, in vol. vii. of the Harl. Misc. pp. 148—151 (first edit.).

art, and of the title of the book or books printed by him, nothing certain can be ascertained¹.

SECTION III.

Progress of Printing in Scotland and Ireland.

As few remains of the early productions of the Scottish press have been discovered, it is not improbable that they perished in the almost total destruction of the Cathedral and Monastic Libraries at the Reformation. Edinburgh and Aberdeen are the only two cities, of whose early typography any specimens have been recorded.

§ 1. 1509. EDINBURGH.—A Breviary (in Latin) for the use of the church of Aberdeen, was printed here, in 8vo. (The second part bears the date of 1510.) The printer's name is not annexed; but from the close connexion, which at that time subsisted between the courts of Scotland and France, it is most probable that both the printer and types were imported from the latter country².

§ 2. 1552. ABERDEEN.—The Catechism of

¹ Herbert, vol. iii. p. 1466.

² From a patent of king James IV. discovered a few years since by Mr. Robertson, keeper of the records in Scotland, it appears that a printing-press was first established at Edinburgh during the year 1507.

that it becomes difficult to distinguish a printed book from a MS. The board, thus carved or engraved, generally contains the characters for two pages.

When the work of the carver is completed, the printer fixes it in a level position: then, being provided with two brushes, he dips the hardest into the ink, and lays it on the carved block in such a manner as to leave a quantity, which will be exactly sufficient for four or five impressions, as he does not ink the board for every impression. When the board has received a proper supply of ink, he lays on the paper; and with the other brush, which is of an oblong figure and softer than the first, he presses the paper upon the board, by gently drawing the brush over it, with a force, which is a little increased with each impression, until the paper has taken off the whole of the ink from the letters. By this process, one man is able to take several thousand copies in a day.

After an edition of a work is printed, the plates or carved boards are collected together; and it is generally stated in the preface, where they are deposited, in case a second edition should be required.

As the printing paper used by the Chinese is not sized by any glutinous liquid, it is too thin and weak to receive distinct impressions on

both sides: one side therefore only is printed. In consequence of this tenuity, when the printed sheets are to be bound into volumes, they are taken separately and doubled, the blank sides touching each other: and they are folded so exactly, as to make the extremities of one page correspond with those of the other, in the same manner as our book-binders proceed: but, contrary to the European mode of binding, all the single edges are so placed as to form the back of the book; the folds make the front, and are never cut.

The Chinese books are, in general, covered with neatly manufactured coloured pasteboard; which, for those who are fond of ornamental or splendid binding, are covered with rich and elegant fancy-coloured silk or satin, and sometimes with gold and silver brocade, &c. The folded edges of the leaves are left plain¹.

SECTION V.

The Progress of Printing in America.

§ 1. SPANISH AMERICA.—As colonies were first settled in Spanish America, it may natu-

¹ Sir G. Staunton's Embassy to China, vol. iii. p. 107, &c. 8vo edit. Barrow's China, p. 310. Duhalde, Descr. de la

rally be expected that the art of printing would be early established there : historians, indeed, are silent as to the time when it was first practised on the American continent ; but it is certain that typography was introduced into this quarter of the globe, at the close of the sixteenth century ¹.

Mention has been made of books printed at Lima, and other cities of the kingdom of Mexico ² ; but as the earliest production of the Mexican press that has hitherto been known, does not bear date till 1571, the introduction of printing can only be fixed a few years before. Mr. Thomas (to whose interesting History of Printing in America we are indebted for our account of American typography) states it, with a tolerable degree of certainty, to have been established in the city of Mexico some years before 1569 ³. Of the Peruvian press, the earliest

Chine, tom. 2. p. 250. A similar method of printing is employed in the empire of Tunkin. Exposé Statistique du Tunkin, tom. 1. p. 356.

¹ Thomas's History of Printing in America, vol. i. p. 189, &c.

² Luckombe's Hist. and Art of Printing, p. 41.

³ Vol. II. p. 510. Mr. Thomas has given the title of the book, now supposed to be the earliest printed in America : As this volume does not seem to be known to European Bibliographers, the following description of it may not be unacceptable. *Vocabulario En Lengua Castellana y Mexicana,*

production appears to be the *Extirpacion de la Idololatria de Peru*, by Father Pablo Jos. de Arriago, which was printed at Lima in 1621; hence it is probable that the art of printing was not introduced long before that time¹: Mr. Thomas fixes its introduction, about the year 1590. The majority of works published in Spanish America, till within the last fifty years, was on religious subjects; beside which numerous works on history, morals, and classical literature have been printed. A printing-press

compuesto por el muy Reuerendo Padre Fray Alonso de Molina de la Orden del bienauenturado nuestro Padre Sant Francisco. Dirigido al muy excelente Senor Don Martin Enriquez, Visorrey de la Nueva Espana. En Mexico, en Casa de Antonia Spinosa, 1571. This dictionary is a folio volume in two parts,—the first (of 122 leaves or 244 pages) of Spanish and Mexican, and the second (of 162 leaves or 324 pages) of Mexican and Spanish. The license for printing it is dated in 1569, and affords indubitable evidence that a press was then at work in Mexico: the epistle dedicatory is of the *same date*; and both circumstances shew that the book was two years in the press. A very large cut of a coat of arms (probably that of the Viceroy, to whom the book is dedicated) fills two-thirds of the title-page; the arms are in eight compartments, surmounted with a coronet. A copy of this dictionary is in the possession of Professor Barton, of Philadelphia; and is probably the oldest specimen of Spanish American printing in the United States.

¹ This at least is the earliest Peruvian book, mentioned by Dr. Robertson, in the list of works procured (some of them with great difficulty) for his History of America; and which are enumerated in the first volume of that work.

was introduced into the Spanish part of the Isle of St. Domingo, about the beginning of the seventeenth century; but its use, (as well as that established in the Isle of Cuba many years since) seems chiefly to be confined to the government.

§ 2. PORTUGUESE AMERICA.—Printing has long been practised in the Portuguese settlements; but the press has been reserved almost exclusively for the use of the government.—Of the state of literature in the Brazils, we have very scanty information: in the year 1792, when Sir George Staunton visited Rio Janeiro, there were but two booksellers in that city, whose shops contained only books on medicine and divinity¹. The intercourse at present subsisting between the courts of Great Britain and of the Brazils, it may be expected, will furnish us with more ample information relative to the state of literature in Portuguese America.

§ 3. THE UNITED STATES.—Until the middle of the eighteenth century, divinity was the principal topic of the books, which issued from the Anglo-American press; a circumstance that may easily be accounted for, when it is recollected that many parts of North America were

¹ Staunton's Embassy to China, vol. i. p. 181. (8vo edit.) The same fact is confirmed by Mr. Barrow's Travels to Cochin China, p. 90.

colonized by individuals, who had been compelled to abandon their native country by persecution for their religious tenets.

The following list will indicate the places where, and the persons by whom, the art was first practised¹.

| | | | |
|-------|--|---|---|
| 1639. | Cambridge, | { | Stephen Daye. ✓ |
| 1649. | Massachusetts, | { | Samuel Green. |
| 1674. | Boston, Mass. ² . | | John Foster ³ , |
| 1687. | Philadelphia [near to], } Pennsylvania, | } | William Bradford. ✓ |
| 1689. | Philadelphia, | | The same. |
| 1693. | New York, | { | The same, who removed from Philadelphia. |
| 1709. | New London, Connecticut, | | Thomas Short. ✓ |

¹ Thomas's Hist. of Printing in America, vol. i. p. 149 *et seq.*

² In this town the celebrated Benjamin Franklin first worked as a printer, whence he afterwards removed to New York, and thence to Philadelphia.

³ This printer died in 1681; and, being much respected, his memory was honoured by two poems, one of which (by Jacob Capen, afterwards minister of Topsfield, Massachusetts) concluded with the following lines:

“ Thy body, which no activeness did lack;
 “ Now's laid aside like an old almanack;
 “ But for the present only's out of date,
 “ 'Twill have at length, a far more active state.
 “ Yea, though with dust thy body soiled be,
 “ Yet at the resurrection we shall see
 “ A fair EDITION, and of matchless worth,
 “ Free from ERRATAS, new in heaven set forth;
 “ 'Tis but a word from God, the great Creator,
 “ It shall be done when he saith *Imprimatur*.”

Whoever has read Dr. Franklin's celebrated epitaph on himself, will have *some* suspicion that it was taken from this *original*. Thomas's Hist. vol. i. p. 277.

1726. Annapolis, Maryland, William Parks. ✓
1729. Williamsburg, Virginia, { The same, removed from
Annapolis.
1730. Charlestown, South Carolina, Eleazar Philips.
1732. Newport, Rhode Island, James Franklin. ✓
1752. Woodbridge, New Jersey, Samuel Parker. ✓
1755. Newbern, North Carolina, James Davia.
1756. Portsmouth, New Hampshire, Daniel Fowle.
1762. Savannah, Georgia, James Johnson.
1781. Westminster, Vermont, Anonymous.
1786. Lexington, Kentucky, John Bradford.
1793. Knoxville, Tennessee, R. Roulstone.
1795. Cincinnati, Ohio, S. Freeman.
- 18—. Natchez, Mississipi Territory, } Anonymous.
- 18—. New Orleans, Louisiana, Anonymous.

§ 4.—*British Colonies in America, and the West Indies.*

1751. Halifax, Nova Scotia, { Bartholomew Green, jun.
John Bushell.
1764. Quebec, Canada, { W. Brown, and —
Gilmore.
1775. Montreal, Canada, { Cha. Berger and Fleury
Mesplet.
1783. New Brunswick, Anonymous.
1725. (About) Kingston, Jamaica, Anonymous.
1756. St. Jago de la Vega, Jamaica, } Anonymous.
1783. Montego-Bay, Jamaica, Anonymous.
1730. Bridge-Town, Barbadoes, { David Harry.
1731. _____ { Samuel Keimer.
1746. Basseterre, St. Christopher's, } Thomas Howe.

- | | | |
|-------|--|---------------|
| 1752. | St. John, Antigua, | Benj. Mecom. |
| 1765. | Roseau, Dominica, | W. Smith. |
| 1765. | St. George's Town, Granada, | } W. Weyland. |
| 1783. | Nassau, New Providence, (Bahama Islands,) | |
| 1784. | Saint George's, Bermuda, | J. Stockdale. |

The first productions of all these presses were, newspapers or colonial gazettes; and very few other works appear to have been printed in the West India Islands. This paucity of literary productions may probably be accounted for, by the facility and cheapness with which books can be imported and sold, from the presses of the mother-country.

§ 5. FRENCH ISLANDS.—It cannot be exactly determined, when printing was introduced into the West India Islands, formerly belonging to France: Mr. Thomas has ascertained that there was a press at Port-au-Prince (in the French part of Saint Domingo) as early as 1750; at which, in 1751, an account was printed of a great earthquake which happened at that time in the Island. But the presses, in Saint Domingo, Martinique, and the other islands formerly belonging to France, were wholly for the use, and under the control, of their respective governments¹.

¹ Thomas's Hist. of Printing, vol. ii. p. 395.

SECTION VI.

Improvements in the Art of Printing.

§ 1. STEREOTYPE PRINTING.—The history of the invention of *stereotype*, or printing with solid types, is involved in obscurity: this art is supposed to be by no means of modern origin, but to have been derived from the cotton and silk printing of the Indians, from the block printing of the Chinese, and the *books of images*¹.

For a long time, various attempts had been made to preserve plates or forms of a whole work: but as this would require an extensive capital, and a large mass of printing types, few of these experiments appear to have produced favourable results. In the printing-office of the Orphan-House at Halle in Saxony, the standing types of bibles and books of devotion have been successfully preserved for many years; and hence such books have been sold at a much lower price than they could elsewhere be procured. Athias, a Jew of Amsterdam, is said to have ruined himself in the attempt to preserve, for many years, all the forms of a great English bible².

Ingenious men, in different countries, have

¹ For a short notice of the principal *books of images*, see the Appendix, No. I.

² Lelong, *Bibliotheca Sacra*, edit. 1723. p. 433. Camus, *Histoire et Procédés du Polytypage et du Stereotypage*, p. 8.

turned their attention towards reducing the expense of printing: of these efforts we shall endeavour to give a brief chronological account.

The earliest inventor of modern stereotype printing appears to be J. Vander May, father of the well-known painter of that name. About the end of the sixteenth century, he resided at Leyden; and with the assistance of M. Muller (pastor of the German congregation of that city), who carefully superintended the correction, he prepared and cast the plates for a quarto edition of the bible. This bible he also published in folio, with large margins ornamented with figures, the forms of which were (in 1801) in the possession of M. Elwe, a bookseller at Amsterdam. An edition of the N. T. in 24mo. was afterwards stereotyped, the plates or forms of which are or were in the hands of MM. Luchtmans, booksellers at Leyden: Vander May likewise published an English New Testament, and Schaaf's Syriac Lexicon, the forms of which have been broken up¹.

Early in the 18th century, (in 1725) William Ged, an ingenious goldsmith, in Edinburgh, began to prosecute the making of metal plates,

¹ Extract from the *Nieuw Algemein Konst en Letter Bode* for 1798, No. 232, in *Philosophical Magazine*, vol. x. p. 276. *Carus*, pp. 8—10.

for the purposes of printing. His invention was simply this:—from any types, of Greek, Roman, or other characters, he formed a plate for every page or sheet of a book, from which he printed, instead of using a type for every letter, as is practised in the common way. In order to execute his plan, Ged, in 1729, entered into partnership with William Fenner, a stationer of London, and John James the architect; whose brother Thomas James, a printer, and the inventor's son James Ged, were afterwards admitted into the concern. In 1730 they obtained a privilege from the University of Cambridge, for printing bibles and common prayer books, according to their improved method; but they finished only two prayer books; and, after sinking a considerable sum of money, they were obliged to relinquish the undertaking. It appears that one of the partners was averse to the success of the plan, and engaged such people for the work, as he thought most likely to spoil it: for the compositors, when they corrected one fault, designedly made six more; and the pressmen, aiding the combination of the compositors, purposely battered the letter in the absence of their employers. In consequence of these base proceedings, the books were suppressed by authority; and the plates were sent first

to the king's printing-office, and thence to Mr. Caslon's type foundry¹.

Ged returned to Edinburgh, ruined, but not discouraged from pursuing his plan: having apprenticed his son to a printer, he in 1739 executed, in conjunction with the latter, an edition of Sallust. The title is—*C. Crispi Sallustii belli Catilinarii et Jugurthini historiae. Edinburgi Guill. Ged aurifaber Edinensis non typis mobilibus, ut vulgo fieri solet, sed tabellis seu laminis exudebat.* It is a small volume in 18mo. of 150 pages².

About the same time, Valleyre, a French printer, attempted to cast plates of metal, for printing calendars: it is a rude essay at stereotyping, and M. Camus has given an impression of one of his plates, containing the calendar for March and April, and supposes the date to be about the year 1735.

In 1740, J. Michael Funckter, a printer and bookseller of Erfurt, published a small work in

¹ *Biographical Memoirs of William Ged, &c.* 1781, 8vo. from which the above account is abridged.

² Ged also printed an edition of "*The Life of God in the Soul of Man,*" on a writing pot 12mo. with the following imprint: "NEWCASTLE: Printed and sold by JOHN WHITE, from plates made by WILLIAM GED, Goldsmith in Edinburgh, MDCCXLII. It is a very neat little volume (says Mr. Tilloch) and is as well printed as books generally were at that time. *Phil. Mag.* vol. x. p. 274.

German, intituled, “ A short and useful Introduction to the cutting of plates (or blocks) of wood and steel, for the making of letters, ornaments, and other figures —, to the art of baking plaster, of preparing sand-moulds for casting letters, vignettes, tail-pieces, medals, and of forming matrices from them, &c.” in 8vo. M. Camus has detailed the processes employed for these purposes, which the limited nature of this abstract will not admit of being specified.

About the year 1775 an attempt at stereotype printing was made at Philadelphia by Benjamin Mecom, nephew of the illustrious Dr. Franklin. He cast plates for several pages of the New Testament, and made considerable progress towards the completion of them; but he never effected it¹.

Some years after, (in 1780) a discovery similar to that of Ged (see p. 214 *supra*) was made by Mr. A. Tilloch, but who had no previous knowledge of Ged’s invention. In perfecting his invention, Mr. T. had the assistance of Mr.

¹ *Thomas’s History of Printing in America*, vol. i. p. 215, vol. ii. p. 68. Mr. Thomas adds that Jacob Perkins, an ingenious printer of Newbury Port, Massachusetts, has lately invented a new kind of stereotype for impressing copper and other plates. From plates so impressed, most of the bank-bills of Massachusetts and New Hampshire are printed at rolling presses, and are called *stereotype-bills*.

Andrew Foulis, printer to the University of Glasgow; after great labour and many experiments, these gentlemen overcame every difficulty, and were able to produce plates, whose impressions could not be distinguished from those taken from the types from which they were cast. Although they had reason to apprehend, from the treatment they afterwards found Ged had received, that their efforts would meet with a similar opposition; yet they persevered in their object for a considerable time, and at length obtained patents, for England and Scotland, in order to secure to themselves the benefit of their invention. These patents have since expired; but owing to circumstances of a private nature, they discontinued the practice of stereotyping, after they had executed several small volumes according to their process¹. Some years after Mr. Tilloch had relinquished the prosecution of his art, Mr. Wilson (a respectable printer in London) engaged with earl Stanhope for the purpose of bringing it to perfection, and eventually to establish it in this country. The success which has attended these efforts are too well known, to require any further detail: it may therefore suffice to observe, that the finer

¹ Phil. Mag. vol. x. pp. 274, 275, in which Mr. Tilloch has given specimens of his Greek and English stereotype printing.

specimens of his stereotype printing are in every respect nearly equal in point of beauty and correctness to the best editions of books printed in the common manner.

In 1783, Joseph Francis Ignatius Hoffmann, a native of Alsace (who settled the following year at Paris) availed himself of the preceding discoveries which had been made in the art of stereotyping, and endeavoured to extend them. He printed, on solid plates, several sheets of his *Journal Polytype*, and advertised father Chenier's *Recherches sur les Maures*, (3 vols. 8vo.) as a polytyped book. Hoffmann was deprived of his printing-office in 1787, by a decree of the council; and in 1792 he addressed a memoir to the minister of the interior, to enable him to open a new channel for his industry. He formed two sorts of types or puncheons; one for detached letters, and the other for letters collected into the syllables most frequently occurring in the French language¹.

Some numbers of Hoffmann's *Journal Polytype* having fallen into the hands of Joseph Carez, a printer at Toul, the latter was struck with the advantages which the new processes seemed to offer; and in 1785 he commenced

¹ Such as *ais, etre, curs, ment*, &c. Hoffmann termed the art of casting types, the *art of polytypy*, and that of re-uniting several characters into a single type, the *art of logotypy*.—See § 2. *Logographic Printing, infra*.

his first essays in editions, which he called *omotyped*, in order to express the re-union of many types in one. He executed several liturgical and devotional works, and among others an edition of the Vulgate Bible, in nonpareil, which possesses great neatness. Hoffmann was followed in his processes of polytyping and logotyping by M. Gengembre, who made his first attempts in 1789, but relinquished them towards the close of 1794, when he embarked for America. But the most successful of the French printers who have practised the art of stereotype printing were M. Didot, the elder, Firmin Didot, and L. H. Herhan, who in 1797 obtained patents for their respective inventions: for a short time they were in partnership, but for some years they have stereotyped various works on their own account; the neatness and cheapness of which are now too well known, to require any description.

In 1798, experiments for stereotyping were made at Vienna by Samuel Falka, a native of Hungary. Being refused a privilege for the practice of his art, he quitted that city, and settled in the printing-office of the university of Buda, whence he has issued several specimens.

The precise method adopted in stereotype printing, both in England and on the Continent,

being a secret confided to few, it is impossible to give the processes peculiar to each printer. The general mode of stereotype printing, however, is understood to be thus : first, a page is set up in the common way¹ with moveable types ; and when it is rendered as correct as the nature of the thing will admit, a cast is taken from it. Into this cast is poured the metal for the stereotype plate ; and so for every page or sheet of a work intended to be stereotyped. When the plates are prepared, they are printed off in the common way ; the impressions from the printing-press, improved by Lord Stanhope, are very beautiful.

The advantage, proposed by stereotyping, is that of superior cheapness and correctness².—To standard books of every description, (especially to BIBLES)—which circulate extensively, and are in constant demand,—and in which also no alteration in size or price is ever allowed to take place,—the art has been most beneficially applied : but, as no actual saving can be made

¹ See this mode described, *infra*, Sect. VIII. on the *Mechanism of Printing*.

² With all the care that can be given, stereotyped works cannot perhaps be free from errors in a first edition : and although stereotype plates will admit of alterations, yet if these be numerous, the expense must be considerable. There certainly is danger lest errors, committed in a first edition, should be perpetuated through every subsequent impression.

in the production of other works, the common method, by moveable types, is confessedly preferable for the ordinary and most general purposes of the art of printing.

§ 2. LOGOGRAPHIC PRINTING.—Some years since, a patent was obtained by the late Mr. Walter, for an improved mode of printing, by him termed Logography; and in which the types correspond to whole words and not to single letters, as in the usual manner. In the year 1783, the origin and utility of the art were stated in a small 8vo volume¹: in which it appears, that from the year 1778, the inventor made several successful attempts for the practice of this art. By his mode of arranging and composing for printing, with words entire, their radices and terminations, instead of single words, the author attempts to prove that it possesses the following advantages, viz. 1. That the compositor shall have less charged upon his memory than in the common way. 2. That it is much less liable to error. 3. That the type of each word is as easily laid hold of as that of a single letter. 4. That the decomposition is much more readily performed, even by novices, than that of mere letters. 5. That no extraordinary expense nor a greater number of types is

¹ *An Introduction to Logography*, by Mr. H. Johnson, an ingenious compositor.

required in the logographic than in the common method of printing.

This method of printing however did not succeed, and from an examination of the author's pamphlet, it should seem not to afford that security against error, which he so strenuously asserts. In the title-page of his Introduction, the word *Majesty* is printed *Najesty*; and in page 47, in the word *extensive*, an *e* has dropped below the line, which evidently shews that common types were used in the composition of the work.

Mr. Walter's Logography is very similar to Hoffmann's *Logotypy*, already mentioned ¹, and to the method of printing announced in 1776 by M. Saint Paul ². The latter consists in employing, for typographical composition, letters united together and forming a sound, instead of detached letters, as is usual in the common way; so that each sound, being composed of several letters, as *am*, *ion*, *ains*, or *illes*, shall be expressed by one single character, cast at once by the founder, although containing several letters. This mode of printing appears to have failed also in France, or rather to have been rendered

¹ See p. 318, *supra*.

² *Nouveau Système Typographique, ou Moyen de diminuer de moitié, dans toutes les imprimeries de l'Europe, le travail et les frais de composition, de correction et de distribution, découvert en 1774, par Madame de ***.* 4to. Paris, 1776.

unnecessary by the successful introduction of stereotypy.

§ 3. FAC-SIMILE PRINTING.—The art of printing with types, so formed as precisely to resemble the characters of MSS. was first practised at Florence in the year 1741, when a fac-simile of the celebrated Medicean Virgil was published in small quarto. A very limited number of impressions was struck off on vellum; copies of which are of great rarity. Large paper copies of this work are also of rare occurrence¹.

The first great work of this kind, executed in England, is DOMESDAY BOOK, containing the survey of England, made by order of king William I. and published in two vols. folio, in 1783. The original MS. of this valuable national record is preserved in the Chapter-house at Westminster: it is comprised in two volumes, one a large folio, the other a quarto; the first begins in Kent and ends in Lincolnshire, and is written on 382 double pages of vellum in a small and plain character. The other volume, in quarto, is

¹ The title of this work is—*P. Vergilii Maronis Codex Antiquissimus a Rufio Turcio Aproniano V. C. distinctus et emendatus qui nunc Florentiæ in Bibliotheca Mediceo-Laurentiana adservatur Bono Publico Typis descriptus anno MDCCXLI. Florentiæ Typis Mannianis, 4to.* Small paper copies of this work are worth from 10s. 6d. upwards, according to their condition. The MS. of Virgil, here described, is upwards of 1300 years old. See Dibdin on the Classics, vol. ii. p. 331.

written on 450 double pages of vellum, but in a single column, and in a large fair character. This work was made public in 1783, by order of the House of Lords. It was transcribed from the original, and most accurately revised through the press by Abr. Farley, Esq. and is printed with types resembling the original, cut for the purpose, and executed at the press of Mr. John Nichols'.

The next work of this description was the fac-simile of part of the *Codex Alexandrinus*, containing the New Testament. The original of this MS. is deposited in the British Museum : and the fac-simile, published by Dr. Woide, in 1786, in folio, exhibits its prototype, with a degree of fidelity scarcely credible. Ten copies only of this valuable work were printed on vellum. In 1812, a fac-simile of the Book of Psalms, from the same MS. and types, was published by the Rev. H. H. Baber, (one of the librarians at the British Museum); who has issued proposals for executing the Pentateuch, in a similar manner.

One other work only remains to be noticed, under this head, viz. Dr. Kipling's edition of

¹ An index of persons, places and things, comprised in this valuable work, has recently been compiled under the direction of the commissioners of the public records of the realm, which ought to be purchased by every possessor of Domesday-Book, to render his copy complete.

the four Gospels and Acts of the Apostles, according to the Codex Bezaë. This work was printed at Cambridge, in 1793, in two volumes folio, on the most beautiful paper. It is at once a splendid ornament to the university press, and an unrivalled specimen of typographic excellence.

The practice of fac-simile printing has chiefly been confined to the rarest MSS.; which, being liable to decay, have thus been preserved for every valuable purpose of collation.

§ 4. PRINTING IN GOLD LETTERS.—A splendid mode of printing in burnished gold letters has recently been invented by Mr. John Whitaker, an ingenious bookbinder, which ought not to pass unnoticed in a retrospect of the improvements in the typographic art. Mr. W. has issued proposals for an edition of Magna Charta, (from the original MS. deposited in the British Museum), to be executed after his improved method, on royal purple satin, and on superfine vellum paper: the specimens we have seen are truly superb, and reflect the highest honour on the artist¹.

¹ M. Crapelet, a celebrated Parisian printer, well-known for the beautiful editions which have issued from his press, made several experiments towards printing in golden letters: at length he succeeded, and executed in this style twelve copies of Audebert's and Viellot's *Oiseaux Dorés*. Cailleau, however,

SECTION VII.

Observations on early Printers and Printing.

AFTER the introduction of printing into Europe, the scribes exerted their utmost efforts to excel in their profession, in order that they might retain their rank in society: but they were soon obliged to yield to the superior utility of the press; as the works performed by it were sold at a much cheaper rate than could possibly be afforded by the scribes.

In the early stages of typography, the name of the printer, his place of residence, and the date of his performance, were generally inserted at the end of each book, and not unfrequently accompanied by some pious doxology or ejaculation, in prose or in verse¹.

does not speak in the most favourable terms of these typographical refinements. Cailleau, *Dict. Bibl.* tom. iv. p. 36.

¹ Mr. Thomas (Hist. of Print. in America, vol. i. p. 159) has given the following curious couplet; which, he states, is to be found in the edition of the "*Pragmatic Sanction*," printed by Andrew Bocard at Paris, in 1507.

"Stet liber hic, donec fluctus formica marinos
"Exhibit; et totum testudo perambulet orbem."

Imitated.

May this volume continue in motion,
And its pages each day be unfurl'd;
Till an ant to the dregs drinks the ocean,
Or a tortoise has crawl'd round the world.

The antient printers did not divide words at the ends of lines by hyphens; but, in order to compress as much as possible within a given compass, they made use of vowels with a mark of abbreviation, which denoted that one or more letters were omitted in the syllable where it was placed. For instance, *dño* for *domino*; *volūtas* for *voluntas*; *c'* for *cum*; *quib'* for *quibus*; *decorat'* for *decoratus*; *rubricationibusq;* for *rubricationibusque*; *scipit* for *concepit*; *x̄pum* for *christum*; *ēē* for *esse*; *̄c.* for *et cetera*; *pponatur* for *proponatur*; *puipēdere*, for *parvipendere*, &c. Thierry Martens, of Alost, abounded particularly in these abbreviations. At length the great number and variety of them, which were gradually introduced, created such obstacles, as the most dexterous and persevering readers only could overcome.

At the foot of the title-page of the Prymer of Salisbury, 1533, there is the following remarkable prayer:

God be in my bede,
 And in my understandyng.
 God be in my eyen,
 And in my lokyng.
 God be in my mouthe,
 And in my spekyng.
 God be in my herte,
 And in my thinkyng.
 God be at myn ende,
 And at my departyng.

Both in manuscripts and in the printed books of the fifteenth century, the vowels and consonants, u and v, i and j, are confounded together, and indifferently used the one for the other: the diphthongs æ and œ do not occur, their place being supplied either by the simple e, or by ae and oe; c was often used for t, as *nacio* for *natio*, *oracio* for *oratio*; *phantasma* was spelled *fantasma*; *michi*, *nichil*, for *mihi*, *nihil*; *contemplatio*, *cotidiana*, *servicia*, *sompnum*, for *contemplatio*, *quotidiana*, *servitia*, *somnum*, &c. &c.

For many years after the introduction of the art into this country, the English printing was inferior to that executed on the continent: Caxton's types are greatly inferior, in point of beauty, to the black letter of Jenson and Kœburger¹: these latter, (Mr. Dibdin observes) have a squareness, firmness, and brilliancy of effect, which are not to be discovered in the works of our typographer. He thinks it probable, however, that much of the superiority of effect, in point of beauty, discernible in the works of foreign printers of this period, arises from the excellence of the *paper* and *press-work*. That perfect order and symmetry of press-work, so immediately striking in the pages of foreign books of this period, are in vain to be sought

¹ See a brief notice of these eminent printers, in the Appendix, No. VII.

for among the volumes which have issued from Caxton's press; and the uniform rejection of the Roman letter, when it was so successfully introduced by the Spiras,² Jenson, and Sweynheym and Pannartz, is unquestionably a blemish in our typographer's reputation. But on the other hand (continues Mr. D.) whenever we meet with good copies of his books, his type has a bold and rich effect, which renders their perusal less painful than that of many foreign productions, where the angular sharpness of the letters somewhat dazzles and hurts the eye. Caxton's ink is of a very inferior quality: he probably imported it, and in consequence was left at the mercy of his agents—to receive what had been discarded by other printers¹.

Caxton's books are printed on paper made from the paste of linen rags, very fine and good, and not unlike the thin vellum, on which MSS. were at that time usually written. His first performances are very rude and barbarous: he used a letter resembling the hand-writing then in use. His *d* at the end of a word is very singular: he employed the characteristics which we find in English MSS. before the conquest; and instead of commas and periods, he used an oblique stroke /, which is to this day retained

¹ Dibdin's Ames, vol. I. p. cxxvi.

by the Dutch printers in their impressions of books in Gothic or black letter. Caxton's letter was a mixture of secretary and Gothic, resembling the usual character of our manuscripts of that age, as the types of Fust, Schoiffer, and others of the first printers resemble the character of the MSS. of which they made use, all of which were of the same lineage, and differed but little in the features of their countenance¹. Like other printers of that time, he never used any direction or catch-word, but placed the signatures where that now stands; he rarely numbered his leaves, and never his pages. Agreeably to the then prevalent custom, he printed, in most of his books, only a small letter at the beginning of the chapters, to intimate what the initial letter should be, which was left to be inserted by the illuminators; but in some of his books he used two-line letters of a Gothic kind. As he printed long before the present method of adding the errata, at the end of books, was practised, his extraordinary exactness obliged him to take considerably more pains than can easily be imagined: for after a book was printed off, his method was to revise it, and amend the faults with red ink. One copy being thus corrected, he then

¹ Rowe Mores's Dissertation upon English Typographical Founders and Founderies, p. 4.

employed a proper person to correct the whole impression. Specimens of Caxton's types are given in the annexed engravings.

SPECIMENS OF CAXTON'S TYPES.

A G F E S O W

2
 Et commence le volume intitulé le recueil des hystoires
 de troyes Compose par venerable homme raoul le feure
 prestre chappellain de mon tresredoubté seigneur Monseñ
 gneur le Duc Philippe de bourgoingne En lan de grace.
 mil. cccc. lxxiiii. . .

No. 1. is a specimen of the capital letters used

by Caxton in most of the productions of his press: this and the following specimens of English types are given from Herbert's edition of Ames's *Typographical Antiquities*.

SPECIMENS OF CAXTON'S TYPES.

3
 ¶ Ende is the booke namede the dictes of Seyengis
 of the philosphes enprynted by me William
 Caxton at Westmestre the yere of our lord + M⁺
 CCC + Lxxvij + Whiche booke is late translated out of

4
 Post obitum Caxton voluit se vivere cura
 Wilhelmi. Chaucer clare poeta sui
 Nam tua non solum comperit opuscula formis
 Has quoque laudes. iussit hic esse tuas

No. 2. is a specimen of the types used by

ANTIEN'T PRINTING.

Caxton in his *Recueil des Histoires de Troye*, the first book ever printed by him : it is without printer's name, date or place. Mr. Dibdin has described it at great length, and given a facsimile engraving of the French and English editions of this work. The English edition was executed by Caxton in 1471 ¹.

No. 3. is a specimen of the types with which were printed the *Dictes and Sayinges of the Philosophers*, printed in 1477. The work itself was translated by Antony Woodville, Earl of Rivers, from the French of Jehan de Teonville, who was Provost of Paris in 1408. The passage in the specimen is taken from the conclusion, added by Caxton, who translated and annexed three additional leaves, containing some strictures, not the most courtly, on the fair sex.—Ames has given this curious Appendix in the original spelling ; Mr. Dibdin, with the spelling modernized ².

No. 4. contains four concluding verses, from Chaucer's translation of *Boetius de Consolatione Philosophie*, folio, no date. It is destitute of signatures, numerals, catch-words and capital initials. The work is in Latin and English : the Latin is not cited at length, but only a few verses of a period, and then the whole of that period in English, and so alternately in Latin

¹ Dibdin's *Typog. Ant.* I. pp. 2—11.

² Ames, pp. 9—12. Dibdin, vol. i. pp. 67—71.

and English throughout. The Latin type is of the size of No. 4; the English of No. 3.

SPECIMENS OF CAXTON'S TYPES.

5. Whiche booke I began in marche the vij daye andi fynyshyd the vij day of Juny. the yere of our lord. M. C. C. C. lxxxij. & the vij yere of the regne of our sayd souerayn lord kyng Edward the fourth. & in this maner sette in forme & enprynted the vij day of nouembre the yere a forsayd in thabbey of Westmester by the sayd Wylliam Caxton

6. Was delyuered to me Willim Caxton by the most crysten kyng & redoubted pryncer my naturel & souerayn lord kyng Henry the vij/kyng of england. & of fraunce in his palais of Westmester the vij/ day of Januarye the iiii/ yere of his regne & desired & wyllid me to translate this said booke & reduce it in to our english & natural tonge/ & to put it in enprynte.

No. 5. is a specimen from *Godfrey of Bolayne*, or the last Siege and Conquest of Jherusalem¹.

¹ Ames, pp. 28—31. Dibdin, I. pp. 130—137.

No. 6. is from the *Fayt of Armes and Chivalry*, a compilation by the celebrated Christine de Pisan, from the military treatises of Vegetius, Frontinus, and the *Arbre des Battailles*. It is copiously described, with extracts, by Mr. Dibdin¹.

These specimens will suffice to give a general idea of Caxton's style of printing: for additional specimens of his work, as well as those of Caxton's immediate successors, the inquisitive student is referred to the first and second volumes of Mr. Dibdin's *Typographical Antiquities*.

The types of Lettou and Machlinia (Caxton's more immediate successors) are rude and broken; and the page is crowded with abbreviations.—The press-work of the latter, when he afterwards printed alone, is superior to that of Lettou; but he is not only far beneath Wynkyn de Worde in every point of good printing, but is frequently below Caxton.

The art of printing in England was greatly improved by Wynkyn de Worde, who cut his own punches, which he sunk into matrices, and cast his own letter². Hence his books are dis-

¹ Ames, pp. 49—51. Dibdin, I. pp. 274—279.

² Dibdin's Ames, vol. ii. pp. 2, 6, 9. VIII. Wynkyn de Worde's founts were, one of double pica, two of great primer, both good, but one thicker than the other, a rude sort of English, a good English, cut about 1496, a long primer and a brevier, which (says Mr. Mores) is "well enough." *Of English Founders and Founderies*, p. 5.

tinguished by their neatness and elegance.— Richard Pynson has the honour of introducing the Roman letter into this country; his types are clear and good, and his press-work well executed, but upon the whole inferior to that of De Worde. In the choice, however, and intrinsic worth of his publications, Pynson has a manifest superiority. Contemporary with him was William Faques, who was king's printer, and probably joined in the same patent with Pynson. They both printed the act of parliament, passed in the 19th Henry VII. (1503) and each styled himself printer to the king. How long he printed before, or continued after, does not appear; but his books shew him to have been an excellent workman. He used a new cut English letter, equalling, if not excelling in beauty, any produced by modern founderies¹.

¹ Mores, p. 6.

The subjoined engraving will afford a favourable specimen of Faques's typographical labours.



It is a copy of the title of a Latin edition of the Psalms, of the same size, printed in 1504. The whole is inclosed in a neat chain, in red and black ink. It begins, *Per te Rosa tolluntur vitia, Per te datur mestis leticia.* Beneath this is an

angel with a shield on his breast, and under that is *Psalterium* in red. Then follow these words: *Ex mandato victoriosissimi Anglie regis Henrici septimi cum psalmorum virtute feliciter incipit.*— After Faques, English typography, like that of the Continent, became greatly degenerated.

No points were used by the antient printers, except the colon and period or full point: after some time the oblique stroke, thus /, was introduced; until Aldus Manutius, in the close of the fifteenth century, among other improvements which he bestowed on the art of printing, corrected and enlarged the punctuation. He gave a better shape to the comma, added the semi-colon, and assigned to the former points more proper places. The notes of interrogation and of admiration were not introduced till many years after.

The orthography, in the infancy of printing, was various, and often arbitrary: an *e* was frequently put for an *i*, and *vice versa*; *e* for *a*, and the reverse; *b* for *v*, &c. &c. *Defusæ* was written for *diffusæ*, *episcobum* for *episcopum*, *apogrifum* for *apocrifum*, &c. Syntax also was disregarded: capital letters were not used according to any certain rules; proper names and sentences were often commenced with small letters, as well as the beginning of verses in poetry.

It is worthy of remark, that the first produc-

tions of the English press consist chiefly of translations from French writers. The numerous French versions of the classics, which appeared in the fifteenth century, enabled Caxton to enrich the literature of this country with many valuable publications, which were translated into English either by himself or by his friends; antient learning had as yet made too little progress among us, to encourage this enterprising and industrious artist to publish the Roman authors in their original language: and, if the French had not furnished him with these materials, it is not likely that Virgil, Ovid, Cicero, and many other good writers, would by means of his press have been circulated in the English tongue so early as the close of the fifteenth century. It is, however, remarkable, that from the year 1471, when Caxton began to print, down to the year 1540, (during which period the English press flourished under the conduct of many industrious, ingenious, and even learned artists), only the very few following classics were printed in England: viz. *Boetius de Consolatione*, both Latin and English, without date, and the *Esopian Fables*, in verse, for Wynkyn de Worde, 1503, in quarto, and once or twice afterwards.—*Terence*, with the comment of Badius Ascensius, and the *Bucolics* of Virgil, 1512, 4to. (again in 1533),—both for

the same person ; Tully's *Offices*, with an English translation by Whittington, 1533, 4to.

During this period, the university of Oxford produced only the first book of Cicero's *Epistles* at the charge of Cardinal Wolsey, without date or printer's name : not a single classic was issued from the Cambridge press. No Greek book of any kind had yet been printed in England : the first Greek characters, used in any work executed in England, occur in Linacer's translation of Galen's Treatise *De Temperamentis*, 4to. Cambridge, 1521, in which a few Greek words and abbreviations are occasionally introduced. The printer was John Siberch, a German, a friend of Erasmus, who styles himself " *primus utriusque linguæ in Anglia impressor* : " Greek characters are to be found in some of his other books of this date : but he printed no entire Greek work. In Linacer's treatise *De emendatâ structurâ Latini Sermonis*, printed by Pynson in 1524, many Greek characters are interspersed, especially in the sixth book, where there are seven lines together. But the printer apologizes for his imperfections and unskilfulness in the Greek types, which he says were but recently cast, and not in a sufficient quantity for such a work, and without spirits or accents.

About the same period of the English press, similar embarrassments appear to have happened

with regard to Hebrew types, which were yet more likely, as that language was then so much less known. In 1524, Dr. Robert Wakefield, chaplain to Henry VIII. published his "*Oratio de laudibus et utilitate trium linguarum, Arabicæ, Chaldaicæ, et Hebraicæ,*" &c. 4to. The printer was Wynkyn de Worde; and the author complains that he was obliged to omit his whole third part because the printer had no Hebrew types. Some few Hebrew and Arabic characters are, however, introduced; but they are extremely rude, and evidently cut in wood; they are the first of the sort used in England. "It was a circumstance, (Dr. Warton observes) favourable at least to English literature, owing indeed to the general *illiteracy* of the times, that our first printers were so little employed on books written in the learned languages. Almost all Caxton's books are English: the multiplication of English copies multiplied English readers; and these again produced new vernacular writers. The existence of a press induced many to turn authors, who were only qualified to write in their native tongue'."

The early printed books were chiefly in the folio and quarto sizes. Before 1465, the uniform character was the old Gothic or German, whence our **Black** was afterwards formed; but in that

^a Warton's Hist. of Eng. Poetry, vol. ij. pp. 123, 124.

year an edition of Lactantius was printed at Subbiaco, in a kind of semi-Gothic, of great elegance, and approaching nearly to the present *Roman* type. The latter was first used at Rome in 1467, (whence its name) and was soon afterwards brought to great perfection at Venice, by Nicholas Jenson.

Towards the end of the fifteenth century, Aldus Manutius¹ invented the beautiful letter, now generally in use and known by the name of *Italic* or *Aldine*; though some German writers and their followers have attempted to call it the *cursive*, to obliterate the memory of its original descent. Aldus invented this sort of letter in order to accomplish the design he had conceived, of executing a collection of all the best works in a smaller form (in 8vo.) than was at that time in use; and which, to convenience and portability, should unite cheapness of price, and also contain nearly as much as a folio or quarto volume. For this purpose he invented a character, the first idea of which, we are assured, was given to him by Petrarch's writing; and employed Francisco di Bologna (an able engraver who had designed and engraven all the other characters

¹ So great was the care bestowed by Aldus in the correction of his proofs, that Angelo Roccha says that he printed at most but *two sheets* per week. Lambinet, *Recherches sur l'Imprimerie*, p. 180.

of his printing-office) to execute the small Italic, so well known, and called after the name of its inventor. This character, though less beautiful than the round letters used by Vindelin de Spira, Jenson, and others, about the year 1472, was far superior to the thick and clumsy Gothic, which had before that time been employed in most printing-offices. The first work executed with this Italic type, was a Virgil, in 8vo, printed in 1501. Aldus has commemorated the talents of the engraver, by the three following verses in *Grammatoglyptæ Laudem* :

Qui Graiis dedit Aldus, en Latinis
 Dat nunc grammata sculpta dædaleis
 Francisci manibus Bononiensis.

Notwithstanding Aldus obtained several privileges for the exclusive use of this Italic type, from the senate of Venice, as well as the pontiffs Alexander VI., Julius II., and Leo X., the printers of Lyons published counterfeit editions of his Latin and Italian 8vo works, as soon as these were printed. Virgil, Horace, Juvenal and Persius, Martial, Lucan, Ovid, Dante, Petrarch, &c. &c. were thus printed, exactly of the same size, with a neat Italic, inferior to that of Aldus, but without date, or any kind of mark. Every thing however was copied, to the very prefaces, which Aldus or his editors had prefixed to their editions. The first pirated

Lyonnese editions were exceedingly incorrect : in vain did Aldus complain of this circumstance, and point out marks by which to distinguish the genuine from the spurious copies ; the Lyonnese availed themselves of his corrections, and perfected their books ¹.

The first essays in Greek printing on the Continent, that can be discovered, are a few sentences which occur in the edition of Cicero de Officiis, printed at Mayence : but these were miserably incorrect and barbarous, if we may judge from the specimens given by Maittaire.

In the same year, 1465, an edition of Lactantius's works was printed *in Monasterio Sublacensi* (Subbiaco, in the kingdom of Naples), in which the quotations from the Greek authors are printed in a very neat Greek letter, of which the subjoined engraving will exhibit a favourable specimen ².

¹ Renouard, Ann. de l'Imp. des Aldes, tom. ii. pp. 14—18.

² This is the first edition of Lactantius, and a work of extreme rarity. It is a proud circumstance, Mr. Beloe remarks, that we should be able to boast of five copies in this country. They are in the possession of the Duke of Marlborough, Lord Pembroke, Earl Spencer, the British Museum, and the Bishop of Rochester. Beloe's Anecdotes of Literature, &c. vol. iii. p. 34. A sixth copy (unknown to Mr. B.) was in the library of the late Mr. Willett (whence our specimen is copied,) which sold for £40. 19s. The passage above given, stands thus in the Bipontine edition of Lactantius.—“Tantum habet Dei cognitio, ac justitia, potestatis. Cui, ergo, nocere possunt,

SPECIMEN OF EARLY GREEK PRINTING.

deicognitio ac talitua potãtis. Cui ergo nocere possunt: nisi bis quos habet
 in sua potãte. Deniq̃ affirmat eos Hermes: qui cognoverit deũ: nõ tantũ
 ab incursibus dæmonũ tutos esse verũ etiã ne fato quidẽ teneri. Μία φνλακὴ
 ενσειβεία ενσειβονσ γαρ αμθρωπων ουτε δαιμων κακος
 ουτε ειμαρμενη κραταιος γαρ εστι θεος γαρ ενει τα ιστορικη ενσειβει πια.

It is taken from the *Institutiones*, lib. 2. c. 16. folio 38 verso. The printers, Sweynheym and Pannartz, seem to have had but a very small quantity of Greek types in the monastery: for, in the first part of the work, whenever a long sentence occurred, a blank was left (as was usual in most of the early printed books) that it might be inserted with a pen. After the middle of the work, however, all the Greek quotations are printed. In 1466, they settled at Rome, where they first introduced the Ro-

nisi iis quos habent in sua potestate? Denique affirmat

eos Hermes, qui cognoverint Deum, non tantum ab incursibus dæmonum tutos esse, verum etiam ne fato quidem teneri. Μία, inquit, φυλακὴ ενσειβεία. ενσειβοῦς γαρ ανθρωπων ου δαιμων κακος, ουτε ειμαρμενη κραται. Θεος γαρ εσται τον ενσειβῆ εκ παντος κακου. *Div. Inst.* l. 2. c. 15.

man type in an edition of Cicero's *Epistolæ Familiares*, in 1467, 4to; and in 1469, they printed a beautiful edition of *Aulus Gellius*¹, with the Greek quotations in a fair character, without accents or spirits, and with very few abbreviations. About the middle of the book is a whole page entirely Greek. The quotations were translated into Latin by Theodore Gaza, for which the editor (Andrea, bishop of Aleria) apologizes, by observing how very little Greek was then understood. The paper and types of Sweynheim and Pannartz were both excellent: the great singularity of the latter was, that they did not place the point over the i; and at the end of words they used the long f, but no diphthongs are to be found in their works. Jenson's productions have the diphthongs æ, œ, and Spira's, the ç for the diphthong æ. "All Sweynheim's and Pannartz's productions are of uncommon rarity and value; and their ink may vie in blackness with the best of the present day."²

¹ Of this extremely rare work, Lord Spencer has an exceedingly fine copy; there is one in the Cracherode Collection in the British Museum; and another in the Bodleian Library. At the beginning of the volume is an interesting dedicatory epistle of five leaves, from the editor Andrea (afterwards bishop of Aleria) to pope Paul II. Curious extracts from this, as well as others of his dedicatory epistles, are given by Santander. Dict. Bibl. du 15 siècle, tom. I. pp. 129—135; and by Mr. Beloe, vol. iii. pp. 274—291.

² Beloe, vol. iii. p. 273.

The first entirely Greek book, that is known to be extant, is the Greek Grammar of Constantine Lascaris, 4to, revised by Demetrius Cretensis, and printed at Milan by Dionysius Paravisinus in 1476¹. In 1481 a Greek Psalter was printed here, with a Latin translation, in folio; as also were the Fables of Æsop, in 4to.

Venice soon followed the example of Milan, and in 1486 were published in that city, the Greek Psalter, by Alexander Cretensis, and the *Batrachomyomachia*, by Leonicus Cretensis, in 4to. But all former publications in this language were eclipsed by the matchless edition of Homer's works, printed at Florence, in 1488, by Demetrius Cretensis, in two volumes folio. Bibliographers are loud in their commendations of this "immortal work," which displays all the luxury of the typographic art².

All the preceding works are prior in point of time to those of the elder Aldus, who has by some writers been erroneously supposed to be the first Greek printer: but the beauty, cor-

¹ Copies of this, which is one of the scarcest books in the world, are in his Majesty's Library (from Dr. Askew's sale, for £21. 10s.) and in those of Lord Spencer, Colonel Johnes, and the Cracherode Collection in the British Museum.

² Dibdin's excellent Introduction to the Greek and Latin Classics, vol. ii. pp. 371—373. Copies are in Lord Spencer's library, the Bodleian Library, and in the Cracherode Collection, deposited in the British Museum.

rectness, and number of his editions, place him in a much higher rank than his predecessors.— His types also are allowed to be more elegant, in general, than any before used. The first Greek work, which issued from his press, was Constantine Lascaris's Greek Grammar above-mentioned¹.

The study of the Greek language was introduced into France by Francis Tissard, at Paris, in 1507; and Greek printing was afterwards practised with the greatest success by the family of Stephens, of whom Robert (I) and Henry (II) were the most distinguished for the beauty of their characters and the extent of their learning. The Greek Testament of the former, (Paris, fol. 1550) and the *Poetæ Græci Principes* of the latter, (fol. 1566) exhibit specimens of Greek printing that have not often been surpassed. The author has compared the splendid edition of Plutarch's moral writings, edited by Professor Wytttenbach, from the Clarendon press, with the above works; which, excepting that

¹ For an account of this interesting specimen of typographic excellence, the Bibliographical student will consult Renouard's *Annales de l'Imprimerie des Aldes*, tom. 1. p. 1, &c. In the second volume of the same work (pp. 51—57,) Renouard has given an account of *nine* different sorts of Greek type used by Aldus, and of *fourteen* sorts of Latin characters, both Roman and Italic, on the making of which he bestowed the greatest possible attention.

they contain more numerous abbreviations, suffer no disparagement by the comparison.

Printing with Hebrew characters appears to have been first performed at Soncino, in the duchy of Milan, in the year 1482, and at Naples in 1487. The first works printed with them were—1. The Pentateuch, in 1482.—2. The greater Prophets, Joshua, Judges, and Samuel, in 1484.—3. The lesser Prophets in 1486. The Hagiographa in 1487. The three first were printed at Soncino, the last at Naples. The whole text of the Hebrew Scriptures was printed in one volume folio, in 1488, by Abraham Ben Rabbi Hhajim. All these early editions are destitute of the Keri and Ketib, which were not introduced till thirty or forty years after¹.

When the art of printing was first discovered,

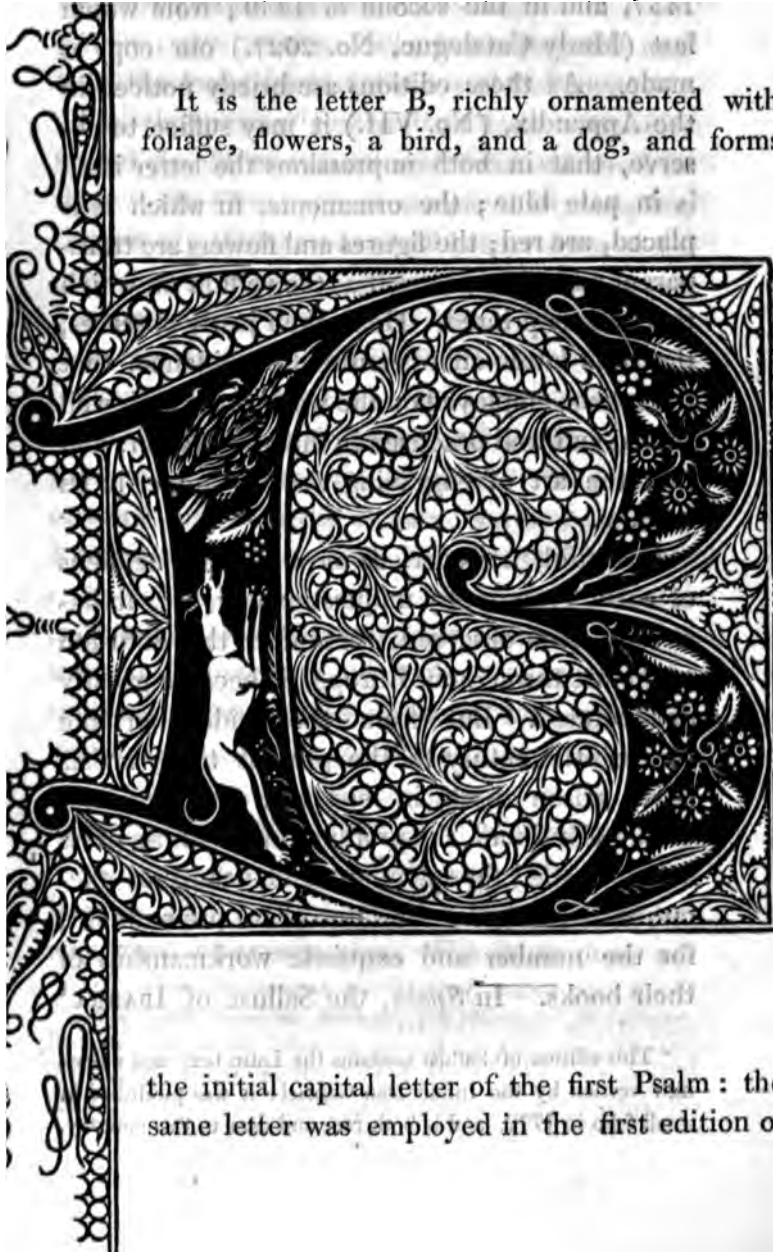
¹ Kennicott, *Diss. Gen.* p. 25, and his *Annual Accounts of the Collection of Hebrew MSS.* p. 112. The book above noticed is of extreme rarity: not more than ten copies are known to be in existence. Santander, *Dict. du xv. Siecle*, tom. 2. p. 175. The illustrious Aldus Manutius (the elder), among other works which he projected for the benefit of literature, conceived the idea of a Polyglott Bible in Hebrew, Greek, and Latin; a great undertaking at that time. Of this vast project, he executed only one specimen page in folio, which is now preserved in the Imperial Library at Paris (No. 3064.) A very few specimens of Hebrew printing occur, among the numerous works that issued from his presses. Renouard, tom. 2. pp. 28, 58.

the printers frequently omitted to print the first letter of a book or chapter, where the edition was intended to be curious; and for this a blank space was left, that it might be illuminated or painted at the option of the purchaser¹. Several of these early volumes have at different times been found, where these initial letters are wanting, the possessors having neglected to have them painted. Sometimes also the capital initials or first letters to the first page of a work were curiously formed by grouping together various figures, representing the letter in question, and by introducing both whole and half-length portraits, as well as heraldic embellishments and historical subjects². Many instances might be offered, would the limits of this work admit of their introduction; but the following beautiful specimen from the celebrated Psalters of Mayence will be fully sufficient to elucidate the remark.

¹ On the subject of illuminations, see pp. 69—71, 127—134, *supra*.

² Mr. Dibdin has ably discussed these topics in his *Preliminary Disquisition on early Engraving and ornamental Printing*, which is illustrated by numerous elegant engravings, faithfully representing the various ornaments with which the early printers decorated the productions of their press. Dibdin's *Ames*, vol. I. pp. i—lvii.

It is the letter B, richly ornamented with foliage, flowers, a bird, and a dog, and forms



the initial capital letter of the first Psalm : the same letter was employed in the first edition of

1457, and in the second of 1459; from which last (Merly Catalogue, No. 2027.) our copy is made. As these editions are briefly noticed in the Appendix, (No. VII.) it may suffice to observe, that in both impressions the letter itself is in pale blue; the ornaments, in which it is placed, are red; the figures and flowers are transparent and white, as well as the vellum on which the book is printed. Heinecken justly observes, that this latter affords authentic evidence, that the artists, employed on the work, were both well skilled and well practised in their profession; and that the art of engraving was no longer in its infancy.

Beautiful, however, as most of the specimens of early typography unquestionably are, it has already been observed, that after the diffusion of the art throughout Europe, it became greatly degenerated. But from the middle of the eighteenth century to the present time, artists have arisen both in our own country and on the Continent, the productions of whose press are unrivalled for splendour and beauty of execution. In *Paris*, the Didors are pre-eminent, for the number and exquisite workmanship of their books. In *Spain*, the Sallust of IBARRA²

² This edition of Sallust contains the Latin text and a Spanish version by the Infant Don Gabriel: it was published in small folio in 1772, and is both rare and dear in this country,

is justly considered as a chef d'œuvre of typography: the letter is *Italic*, but widely differing from the Italic type of Aldus and Colinaeus. In *Italy*, the press of BODONI has long been celebrated for its numerous and beautiful productions. His Greek types are peculiarly elegant, though of a different kind of beauty from those of the elder Stephens, and perhaps less free and flowing in their forms.

In *England*, Baskerville first introduced what is generally termed *fine printing*, by producing a type of superior elegance, and an ink, which gave additional beauty to the type. His editions of some of the Latin classics, as well as some English works, are well known: the peculiar excellence attached to his types, and the celebrity he consequently obtained, gave a stimulus to the exertions and called forth the emulation of British printers. Fine work has therefore been progressively improving; and the books, which have issued from the presses of Davison, Whittingham, Ballantyne and Ramsay, of the printer of this work, and above all of Bensley and Bulmer, may justly be ranked among the finest specimens of typography. The letter-press of

the noble editor reserving most of the copies for presents.—
Brunet, Manuel du Libraire, tom. 2. p. 439. Dibdin on
the Classics, vol. ii. p. 202.

Macklin's splendid edition of the Bible, and of Bowyer's magnificent edition of Hume, by Mr. BENSLEY, and the superb Shakespeare, Milton, and other works by Mr. BULMER, will justly vie with the most costly productions of Bodoni.

It only remains to notice the marks or devices introduced by the first typographers; a method of ornamental printing, "which greatly contributed to the beauty of the book, whether in front or at the termination of it. The French printers have recently revived it: and the insertion would not disgrace the publications of our own country, when it is considered that such able typographers and scholars as Aldus, Froben, Plantin, Oporinus, and the Stephenses have adopted it."

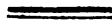
The invention of these *marks*, or *vignettes*, as they are sometimes called, is ascribed by Laire² to the elder Aldus, whose example was soon followed by the most eminent printers. An

¹ Dibdin's Ames, vol. I. p. lvii.

² Laire (Index Librorum, Sæc. xv. vol. II. p. 146.) speaking of a Greek Psalter, says: *Habet signaturas, registrum, ac custodes, sed non numerantur folia. Litteræ principales ligno incisæ sunt, sicut et in principio cujuslibet psalmi viticula, quæ Gallice vignettes appellantur, quarum usum primus excogitavit Aldus.* The volume here described was printed about 1495; and consequently to this date the origin of vignettes or printers' marks may be traced.

alphabetical list of the principal vignettes, thus used by antient printers, will be found in the Appendix (No. III.)

An acquaintance with these marks or devices may contribute towards ascertaining the names of printers in early books, especially where those names have been concealed: but, beside the vignettes above referred to, most of the antient printers made use of monograms or ciphers, containing the initial letters of their names, or other devices, curiously interwoven. As the knowledge of these is essential, in order to fix the identity of antient editions in which the printer's name does not appear, we have given (in the Appendix, No. IV.) engravings of the principal monograms thus employed on the Continent from the invention of printing until the year 1500: those of English printers are placed by themselves, and continued a few years later. A complete collection of these interesting marks is a desideratum in literary history.



SECTION IX.

Mechanism of Printing.

§ 1. LETTER-PRESS PRINTING.—The types or characters employed for printing, are small

pieces of mixed metal¹, containing in relief a letter of the alphabet, or a figure : they are cast in a mould, to which is fitted a matrice,—a piece of copper on which the intended character has been cut or struck in creux, by means of well-tempered steel or iron punches graven in relief. Each letter has its proper matrice : and there are particular ones for figures, points, rules, head-pieces, and other ornaments of printing, except for quadrats ; which, not being intended to leave any impression, are cast without matrices and only in moulds.—Each matrice also has its own puncheon. The characters are divided into three sorts, Roman, Italic, and Black.

The two first sorts, as their name imports, were respectively invented at Rome and in Italy². Roman is at present in general use, and has for a long time been the prevalent letter of Europe; although in Germany and Holland the black letter is used for devotional and religious works.

¹ This metal is understood to be a compound of lead, iron, and antimony ; the composition of type-metal however depends entirely on the discretion of founders, each of whom has proportions, as well as some minutiae in the manufacture, peculiar to himself.—To avoid a multiplication of references in this section, it may be proper to observe, that its materials are derived from Fournier's *Manuel Typographique*, Stower's *Printer's Grammar*, and the *Encyclopædia Britannica*, vol. 15, Article Printing.

² See pp. 241, 242, *supra*.

Italic was originally designed, to distinguish notes, prefaces, and such other parts of a book, as might be said not strictly to belong to the body of the work; whence at least two fifths of a book not unfrequently appeared in that character. At present, it is used more sparingly, extracts being inclosed within inverted commas, and notes, &c. being composed in a smaller type. It is often of service in displaying a title-page or distinguishing the head or subject-matter of a chapter from the chapter itself.

Black letter is thus called in England, from its black face; it is sometimes also termed Old English, from its having been used in early times for printing statutes and other law-books. It is descended from the Gothic character, and has therefore been called Gothic: this sort of type is now generally disused in England.

All these different classes of letters are further subdivided into **LARGE CAPITALS**, **SMALL CAPITALS**, lower case (in which the body of all works is printed,) and double letters, as **fi**, **fl**, **ff**, **ffi**, **ffl**, &c. The last however do not often occur in the more elegant specimens of modern typography.

A fount or font of letter is a set, or quantity of characters of each kind, cast by the letter-founder, and sorted. A complete font not only includes the running letter, but also single let-

ters, double letters, points, commas, lines, borders, head-pieces, tail-pieces, and numeral characters: each fount is also called by a particular name. In the following table the names of the different bodies of letter are exhibited, in a descending scale, according to the proper appellations given to them in England and France.

| ENGLISH. | FRENCH. |
|----------------------------|--------------------------------|
| | La Grosse-nompareille. [non. |
| | Le Triple (ou gros Double) Ca- |
| | Le Double Canon. |
| 1. French Canon. | Le Gros Canon. |
| 2. Two lines Double Pica. | Le Trismegiste. [main. |
| 3. Two lines Great Primer. | Les deux Points de gros Ro- |
| 4. Two lines English. | Le Petit Canon. [le Palestine. |
| 5. Two lines Pica. | Les deux Points de Cicero, ou |
| 6. Double Pica. | Le Gros Parangon. |
| 7. Paragon. | Le Petit Parangon. |
| 8. Great Primer. | Le Gros Romain. |
| 9. English. | Le Saint Augustin. |
| 10. Pica. | Le Cicero. |
| 11. Small Pica. | La Philosophie. |
| 12. Long Primer. | Le Petit Romain, |
| 13. Bourgeois. | La Gaillarde. |
| 14. Brevier. | Le Petit Texte. |
| 15. Minion. | La Mignonne. |
| 16. Nonpareil. | La Nompareille. |
| 17. Pearl. | La Perle. |
| 18. Diamond. | La Parisienne ou Sedanotte. |

Of the different sorts of type above enumerated, Nos. 8. 9. 10. 11. 12. 14. 15. 16. and 17., are most frequently used: and, as the origin of

the names thus given to the different founts of types at best, conjectural, we shall endeavour to convey a correct idea of their various sizes, by giving a specimen of each in the following account of the mechanism of printing.

I. FRENCH CANON.

**There are
two classes
of work-
men, em-
ployed in
the art of
printing;**

**viz. com-
positors,
and press-
men.**

2. TWO LINES DOUBLE PICA.

**The first
are those per-
sons, whose
business it is**

to range and
dispose the
letters into
words, lines,
paragraphs,
pages &c.

3. TWO LINES GREAT PRIMER.

The pressmen
are, properly
speaking, the
printers; for

they take off the impressions of the letters, after the compositors have prepared them for that purpose.

4. TWO LINES ENGLISH.

The types being provided for the compositor, he distributes each kind or sort by itself into small cells or boxes,

made in two wooden frames, called the cases, the upper and the lower case.

5. TWO LINES PICA.

The cells in the upper case are ninety-eight in number; those of the lower case are fifty-four. The upper case contains two alphabets of capitals, **LARGE** or **FULL CAPITALS**, and **SMALL CAPITALS**.

6. DOUBLE PICA.

The upper case also contains cells for the figures, accented letters, the characters

used for references to notes, &c.; and one cell, being a middle one in the bottom row, for the small letter k. The capitals in this case are alphabetically disposed.

7. PARAGON.

The lower case is appropriated to the small letters, the double letters, points, parentheses, spaces and quadrats. The spaces are pieces of metal, of various thicknesses, exactly shaped to the shanks of the letters: they are used to regulate the distances between words.

8. GREAT PRIMER—Black Letter.

The quadrats are square pieces of metal, which require to be cast with the utmost symmetry and care, as much of the beauty of a work depends on their accuracy.

9. ENGLISH.

There are two sorts of quadrats, m and n quadrats: the former, or m quadrat, is the square of the letter to whatever fount it may belong; the latter, or n quadrat, is half that size. M quadrats always begin a paragraph, by indenting the first line: they are also the proper spaces, after a full point, when it terminates a sentence in a paragraph.

10. PICA¹.

N quadrats are generally used after the comma, semi-colon, &c. and sometimes after a curved letter: two-m, three-m, and four-m quadrats, are likewise cast for break-lines, and white lines, but particularly for poetry; for which purpose they ought to be cast with the utmost precision, as the matter will stand uneven, where many of them come together.

11. SMALL PICA.

The boxes or cells of the lower case are of different sizes, but the arrangement in this instance is not alphabetical; as the letters, most frequently wanted, are placed nearest to the compositor's hand. Each case is placed in an inclined direction, that the compositor may reach the upper case with ease.

¹ In this type the text of the two first parts of the present work is chiefly composed; the notes are in the size No. 12. or Long Primer. The third part is, mostly, in No. 11. or Small Pica.

12. LONG PRIMER.

As there is nothing on the outside of the boxes to denote the letters they respectively contain, it is curious to observe the dexterity manifested by the compositor in finding and taking up the letters as he wants them, from the different cells. The distribution of the types in the various boxes of each case is usually the first of a compositor's practical exercises; and ought to be performed with the utmost care, as the expense of printing a work depends greatly upon the paucity or the number of corrections, charged for printing it.

13. BOURGEOIS.

The instrument, in which the letters are set, is called a composing stick: it consists of a long plate of brass or iron, on the side of which arises a ledge, that runs the whole length of the plate, and serves to support the letters, the sides of which are to rest against it.

14. BREVIER.—(ITALIC.)

Along this ledge is a row of holes, for introducing a screw to lengthen or shorten the line, by moving the sliders farther from or nearer to the shorter ledge at the end of the composing stick. When marginal notes are required, the two sliding pieces are opened to a proper distance from each other.

15. MINION.

Before the compositor begins to compose, he puts a thin slip of brass plate, called a rule, cut to the length of the line and of the same height as the letter, in the composing stick, parallel with the ledge, against which the letters are intended to bear.

16. NONPAREIL.

The compositor being thus furnished with an instrument, adapted to hold the letters as they are arranged into words, lines, &c. he places his copy on the upper case just before him: and, holding the stick in his left hand, his thumb being over the slider, with the right he takes up the letters, spaces, &c. one by one, and places them against the rule, while he supports them with his left thumb by pressing them against the slider, the other hand being constantly employed in setting other letters.

17. PEARL.

Having in this manner composed a line, he takes the brass rule from behind it, places it before the letters of which it is composed; and proceeds to compose another line in the same manner. But, before he removes the brass rule, he observes whether the line ends with a complete word, or with an entire syllable of a word, including the hyphen, which is put to denote the division when a word is divided into syllables. If he find that his words exactly fill the measure, he has nothing more to do with that line, but proceeds with the next.

18. DIAMOND.

If, however, he find the measure not entirely filled at the ending of a word or syllable, he puts in more space, diminishing the distances between the words until the measure is full; and this operation, which is called 'justifying,' is done in order that all the lines in the composing stick may be of equal length. Much depends upon exactness in justifying; and great care is taken by a good compositor, that the lines are neither too closely wedged into the composing stick, nor yet loose and uneven.

When the composing stick has been filled with lines, (generally about ten or twelve in number), the compositor empties them upon a thin oblong board termed a *galley*, which is furnished with a ledge on two sides, and with a groove, to admit a small bottom. When the compositor has filled and emptied his stick until he has composed a page, he ties it up with a piece of packthread, and removes it from the galley, either to the imposing-stone, or to some other safe and convenient place. And thus he proceeds, until he has composed as many pages as are required to make a sheet, or, in some instances, a half-sheet. He then proceeds to arrange the pages on the imposing-stone, which is a very large oblong stone, about five or six inches in thickness. The pages are disposed in such a manner, that when printed, they may be so folded as to follow each other regularly. Each sheet is denoted by a letter of the alphabet, which is termed a signature: and sometimes a direction word, or (technically speaking) a *catch-word*, is placed at the bottom of the page; but these words are not now in general use, and they certainly add nothing to the symmetry of the page. Great care, and some ingenuity, is requisite in imposing a sheet

or half-sheet, particularly of works in sizes less than a folio or quarto.

Having laid down or disposed the pages in a right order on the imposing-stone, the compositor proceeds to what is called dressing the chases. The chase is a rectangular iron frame of different dimensions, according to the size of the paper to be printed; having two cross pieces of the same metal, called a long and a short cross, mortised at each end, so as to be taken out occasionally. By the different situations of these crosses, the chase is fitted for volumes of different sizes, as folios, quartos, octavos, duodecimos, &c. In order to dress the chase a set of furniture is necessary; consisting of slips of wood of various dimensions.

The first thing to be done is, to lay the chase over the pages; after which that part of the furniture, called gutter-sticks, is placed between the respective pages. Next, another part of the furniture, called reglets, is placed along the sides of the crosses of the chase: these reglets are of such a thickness as will let the book have proper margins, after it is bound. Having dressed the inside of the chases, the compositor proceeds to do the same with their outsides, by putting side-sticks and foot-sticks to them. The pages being thus placed at proper distances, they are all untied, and fastened together by small wooden

wedges, called quoins. These small wedges being firmly driven up the sides and feet of the pages, by means of a mallet and a hard piece of wood termed a shooting-stick, all the letters are fastened together. In this condition the work is called a form, and is ready for the pressman, who lays it upon the press for the purpose of pulling a proof. When a proof is pulled, the forms are rubbed over with a brush dipped in a ley made of pearl-ash and water: they are then carefully removed from the press; and the proof, together with the forms, is delivered to the compositor's further care.

It would exceed the limits prescribed to this article by the nature of the present work, were we to detail all the various particulars of the typographic art previously to the completion of a work. It may, therefore, suffice to say that the proof sheet and manuscript copy are conveyed to the reader or corrector of the press; whose business it is to read over the whole proof with great care and attention, and to mark in the margin of every page such errata as he shall observe. These errata having been corrected in the metal by the compositor, another proof is pulled, to be again put into the reader's hands, or to be sent to the author. This proof being also read and corrected, a revise is pulled, in order to ascertain whether all the errors marked in the last proof are properly corrected.

When the sheet is supposed to be correct, the forms are given to the pressman; whose province it is to work them off, after they have thus been revised and corrected. The paper is prepared for use by being previously dipped in water, a few sheets at a time, and afterwards laid in a heap, sheet over sheet: in order that the water may equally penetrate through every sheet, a thick deal board is laid upon the heap, on which heavy weights are placed according to its size. The reason why the paper must be wetted before it is in a fit state to be printed upon, is, that it may become sufficiently soft to adhere closely to the surface of the letter, and take up a proper quantity of ink, that it may receive a fair and clear impression. It is also necessary to wet the paper, lest its stiff and harsh nature, when dry, should injure the face of the letters.

The press is a curious and complex machine, formed upon true mathematical principles; the structure of which being unintelligible without the aid of several figures¹, it only remains to add that the form is laid thereon; and its surface being equally covered with printer's ink by means

¹ On the structure of printing-presses, the curious reader will find much information in the 12th chapter of Mr. Stower's "Printer's Grammar," in which the improved press, invented and brought to perfection by the Right Hon. Earl Stanhope, is described in all its parts, and illustrated with numerous spirited engravings on wood.

of balls duly prepared, the pressman subjects the form to the powerful action of the press, which he pulls twice, that the impression may be complete. The printed sheet is then taken out, and fresh sheets are successively supplied until the impression is taken off upon the full number of sheets of which the edition is intended to consist. One side of every sheet being thus printed, the form for the other side is laid on the press, and worked off in a similar manner. The sheets are then committed to the care of the printer's warehouse-man, whose business it is to hang them up until they are dry, when they are gathered, and delivered over to the author or bookseller.

§ 2. ENGRAVING ON WOOD.—Engravings on wood are worked off at the common letter-press, the block being either inserted in the form where the subject may require it, or sometimes printed on a separate leaf like a copper-plate engraving. The earliest specimens of engraving on wood, are probably playing cards; which were known in Germany before the year 1376. The earliest impression of a wood-cut, with a date, not confined to the subject of card-playing, is the celebrated print of St. Christopher and the infant Jesus, discovered by Baron Heineken, in the library of a convent at Buxheim, near Memmingen in Suabia. It has the date of 1423. This great curiosity was found pasted within the

binding of an old book, printed in the 15th century: it is now in the magnificent collection of Earl Spencer¹. Among the foreign engravers on wood, Albert Durer stands pre-eminent, for the boldness and delicacy of his strokes. The art of engraving on wood was certainly known in England, about the year 1474, as the second edition of Caxton's Game of Chess is ornamented with wood-cuts: so are his "Thymage or Myrrour of the World," (1481); his "Golden Legend," (1483); "The Subtyl Histories and Fables of Esope," (1484); &c².

Towards the close of the seventeenth century, this branch of the graphic art had almost sunk into oblivion, when Thomas Bewick of Newcastle revived it, a few years since. Bewick has

¹ Dibdin's Ames, vol. i. p. 2, note. Landseer's "Lectures on Engraving," p. 190. See p. 155 *supra*.

² The earliest book with wooden cuts, that was printed with moveable types, (in Mr. Douce's opinion) is the *Ars memorativa* of Jacobus Publicius. It is executed in Gothic characters, with so many and complicated abbreviations, as to render it by no means easy of perusal: it is supposed to have been printed by John Guldenschoff of Mayence or Cologne. The engravings are extremely rude, and very grotesque, representing the alphabet by symbols taken from different objects. Beloe's Anecdotes, vol. i. p. 228. Account of the principal systems of Artificial Memory, appended to "The New Art of Memory, founded upon the principles taught by M. Gregor von Feinaigle," p. 183. A copy of this rare work of Publicius, is in the British Museum, and another is in the possession of Mr. Douce.

been considered by some persons, as the re-inventor of the art; which he has brought to a degree of perfection unknown to the later engravers. The productions of his pupils, C. and J. Nesbit and Anderson, as well as those of Austin, Berryman, Branston, Byfield, Jackson, Lee, (by whom the cuts in this volume are executed) and others, leave nothing further to be desired, towards the improvement of engraving on wood.

§ 3. ROLLING-PRESS PRINTING.—Rolling-press printing is employed for the purpose of taking off prints or impressions from copper-plates engraved, etched or scraped.

Of engravings upon copper, the earliest known impression is that executed by Thomaso Finiguerra, a goldsmith of Florence, with the date of 1460 upon it: accident is said to have given rise to this discovery. It is known to be common with those who engrave ornaments on plate, occasionally to rub a little charcoal, or oil, or both, into their work, for the purpose of seeing the better what they are doing. In the year abovementioned, Finiguerra chanced to cast or let fall a piece of engraving filled with this sort of ink, into melted sulphur; and, observing that the exact impression of his work was left on the sulphur, he repeated the experiment on moistened paper, rolling it gently with a roller.

It was attended with success; and Finiguerra, imparting his discovery to Baccio Baldini, of the same place and profession, it was by him communicated to Sandro Boticelli¹.

In the following year 1461, if not in 1460, Martin Schön or Schoen first exercised the art of engraving in Germany, and in a few years after it was practised throughout Europe.

The earliest copper-plate engraving of the French school, is that of Leon Daven, in 1540; of the English school, by Thomas Geminus or Geminie, 1545; of Lucas van Leyden, in 1509².

The ink used for copper-plate printing is called Frankfort black: it is composed of the stones of peaches and apricots, of the bones of sheep, and of ivory, all well burnt and mixed with well-boiled nut oil, by being ground together on a marble after the same manner as painters grind their colours.

The method of taking off impressions from

¹ Landseer, pp. 191, 192. Walpole's Catalogue of Engravers, (Works, IV. p. 2.) Huber, however, has given another account of the origin of engraving on copper. "It is reported," says he, "that a washerwoman left some linen upon a plate or dish, on which Finiguerra had just been engraving; and that an impression of the subject engraved, however imperfect, came off upon the linen, occasioned by its weight and moistness." Huber, *Notice des Graveurs*, pp. 2, 3.

² Walpole's Works, IV. p. 4. *Voyage de deux Français au Nord de l'Europe*, tom. I. p. 27.

copper-plates, is as follows : The printer takes a small quantity of this ink on a rubber made of linen rags, strongly bound together ; and with it he besmears the whole face of the plate, as it lies on a grate over a charcoal fire. The plate being sufficiently inked, he first wipes it over with a rag, then with the palm of his left hand, and afterwards with his right hand ; in order to dry the hand, and forward the wiping, he rubs it from time to time in whiting. In wiping the plate perfectly clean, yet without taking the ink out of the engraving, the address of the workman consists. The plate thus prepared, is laid on the plank of the press ; over the plate is laid the paper, which has previously been well moistened in order to receive the impression ; and over the paper are two or three folds of flannel. The arms of the cross, belonging to the press, are then pulled, and the plate with its furniture passes through, between rollers ; which, pinching very strongly yet equally, press the moistened paper into the strokes of the engraving, whence it imbibes the ink, and the impression is of course complete.

§ 4. POLYAUTOGRAPHIC PRINTING.—A new mode of printing, or more properly engraving upon stone, was announced a few years since, and specimens of polyautography were published ; consisting of prints from actual sketches on

stone, after the most eminent English artists. It was invented by M. Aloysius Senefelder, who carried on his discovery with great success at Munich; by him an assignment was made, of his art, to M. André, who in 1801 obtained a patent for its exercise in this country, but did not meet with very extensive encouragement. The drawings are made with an unctuous composition, in the form of a crayon, or of an ink, on a soft calcareous stone, somewhat like a stone marle. When the drawing is finished, the stone is moistened, and imbibes so much water, that the printing ink will not adhere to it, except at the parts where the crayon or the ink has been applied; and in this manner an impression is procured, which has much of the freedom and spirit of an original drawing. When the ink is used, a little acid is afterwards applied to the stone, in order to corrode its intermediate parts: and the bold style of the impression much resembles that of the old wooden cuts¹.

In the opinion of a very eminent engraver², this method of etching on stone is calculated, perhaps beyond any art at present known, to

¹ Young's Lectures on Nat. Phil. vol. i. p. 122. Gent. Mag. vol. lxxviii. Part I. pp. 193—196. Europ. Mag. vol. lviii. pp. 114, 115, where the processes are described at length.

² Landseer's Lectures on Engraving, p. 193.

render a faithful fac-simile of a painter's sketch. Four thousand impressions have been taken from the plates, without any apparent detriment: every allowance, therefore, being made for the partiality of the ingenious inventor, some credit is due to his assertion, that so many as sixty thousand copies might by this process be made from one drawing. It certainly is to be regretted that polyautography has not met with that success in this country, which has crowned its exercise in Germany, France, and Italy.

PART II.

ON BOOKS.

CHAPTER I.

General Remarks on the Denominations, Sizes, &c. of Books.

SECTION I.

Denominations of Books.

THE knowledge of authors and their works forms a most extensive and interesting part of literary history: it is divided into various classes, whose limits are not easily defined, but which may, perhaps, be reduced to the following nine classes.

§ *i.* *MSS. and Printed Books.*—The first are those written with the hand, and are either autographs, copies originally written by the authors themselves, or such as have been transcribed by the librarii or copyists: previously to the invention of printing, autographs were of the utmost value, because they were not disfigured by the ignorance or the negligence of the copyists. As the subject of manuscripts has already been discussed at considerable length, both with regard

to the material employed for writing, and also to the various styles of writing which have prevailed in different ages; it will be sufficient to refer to the first part of this work¹. Printed books are the subject of the remainder of the present volume. Books and authors are further distinguished into

§ ii. *Those of the antient, middle, and modern ages*, with respect to the time in which the former were written, and the latter flourished.

The *antient* age comprises 1. the Grecian which commenced near the time of the Peloponnesian war, and continued till the time of Alexander the Great; and 2. the Roman age, included nearly within the days of Julius Cæsar and Augustus; this period, or at least a considerable portion of it has been denominated the Augustan Age. The Roman Age has by some been extended to the close of the fourth century.

The *middle age* commences with the fifth century, and is continued to the capture of Constantinople by Mohammed II.

The *modern age* commences with the revival of literature, and continues to the present time.

§ iii. *Theological, historical, poetical, &c.* according to the subject of which each author has treated, and the nature or species of composition employed by him.

¹ See Part I. chapters i. and ii. pp. 30—143.

§ *iv.* *Pagan, Jewish, Christian, Mohammedan, &c.* according to the religion of each author, and the subjects he has treated.

§ *v.* *Sacred, ecclesiastical, or profane.*—Of the first description are the Holy Scriptures and theological works: of the second are such as treat of the laws, discipline, &c. of the church; profane books are those which do not discuss matters of religion.

§ *vi.* *With regard to their authors,* books are (1.) *Allonymous*; those published under the real name of some author of reputation, to whom consequently works are attributed which he never composed. Such was the Book on Antiquities published by Annius of Viterbo, at Rome, in 1498, in folio; and again in 1542, in octavo. In this compilation, Annius has been charged with fabricating works falsely attributed to Xenophon, Philo, and other antient authors¹.

¹ The first Roman edition of this work (1498) is of great rarity: it is in folio, printed in Gothic letters, the text of which is in larger characters than the commentary. It is intitled, “*Fratris Joannis Annii Viterbiensis Ord. Prædic. Theol. Profess. Commentaria super opera diversorum Auctorum de Antiquitatibus loquentium &c.*” Joannes Annius (or Nanni) of Viterbo, was a member of the order of Friars Preachers, and master of the sacred palace under Pope Alexander VI. Santander acquits him of the fraud usually charged against him, and thinks he was led into a mistake, at a time when the principles of sound criticism were unknown, and that he only adopted and collected together writings, which had been forged

(2.) *Anonymous* ; those without any author's name. Several works have been published on anonymous books, which are noticed in a subsequent page¹.

(3.) *Cryptonymous* ; those whose authors' names are concealed in some anagram or the like : of this description is " Telliamed, or Discourses on the Diminution of the Sea, the Formation of the Earth," &c. by M. de Maillet ; of which name Telliamed is the anagram.

(4.) *Pseudonymous* ; those which bear false names of authors : several publications have appeared on pseudonymous works, which are also noticed in the course of this volume¹.

(5.) *Genuine* ; those really written by the authors whose names they bear, and which remain in the state in which they were left.

(6.) *Apocryphal* ; such as come from an uncertain author, on which much reliance cannot be placed. In this sense we say an apocryphal book, passage, history, &c.

(7.) *Spurious* ; such as are proved to have been written by others than the real authors whose names they bear.

(8.) *Interpolated* ; those which since their composition have been corrupted by spurious additions or insertions.

before his time. Santander, Dict. du 15^e Siecle, tom. ii. pp. 56, 57.

¹ *Infra*, Part III. chap. iv. sect. iii.

(9.) *Posthumous*; books published after their authors' decease.

§ *vii. Relative qualities.*—As books may be written on every possible subject, another natural division of them presents itself into good and bad, according to their respective qualities.

A book may be a *good* one in different points of view.—Thus, in the estimation of a divine or a religious man, a theological or devotional work is a good one :—a man of learning considers instructive books only to be good :—an artist, such as are well written on a subject relative to his own peculiar art ;—in the language of the curious a scarce book,—in a bookseller's language a saleable book is a good one ; but rapidity of sale is no certain criterion of the real value of a work : the most worthless sometimes obtain the greatest circulation.

Under the term *bad books*, may be classed 1. All those which contain principles hostile to the interests of morality or religion ; and 2. Such as are ill digested, or incorrectly written on any topic.

According to their qualities, books may further be divided into *clear* or perspicuous ; which, in dogmatical works (such as lay down doctrines on general truths), are those whose authors accurately define all their terms, and strictly adhere to their definitions in the course of their work :—

obscure ; those in which words are used vaguely, and without being properly defined:—*prolix* ; in which more things are contained than are necessary to the author's design :—*useful* ; those which deliver things necessary to be known, either in other sciences or in the business of life :—*complete* ; such as contain all that is known concerning the subject :—*relatively complete* ; those containing all that was known concerning the subject at a certain time ;—or if a book were written with any particular design, it may be said to be complete, if it contain neither more nor less than is necessary for the accomplishing of that design :—in contrary cases, books are said to be *incomplete*. Happy will the author of these sheets deem himself, if the latter quality be not found to prevail in the present volume.

§ *viii*. Books, with regard to *circumstances* and *accidents*, may be divided into books *lost*, *promised*, and *fictitious*.

1. Books lost, are those which have perished by the injuries of time, or through the malice or zeal of enemies. Such are very many productions of Greek and Roman authors, and several (it is supposed) of the antient books of Scripture. Of the latter, Fabricius has collected all that can be ascertained in his *Codex Pseudepigraphus Veteris Testamenti* (tom. ii. pp. 171, 247).

2. Books promised, are those which authors

have given the public reason to expect, but which they have never accomplished. Almeloveen published, in 1688, a small octavo volume of books promised, but still latent or unpublished; and a continuation of this work was printed by Meelfuhrer in 1699. A further continuation of this work is a desideratum in literary history.

3. Fictitious books, as the term implies, are such as never had any existence; to which may be added various feigned titles of books. Loescher has published a great number of plans or projects of books, many of which would be useful enough, were works written corresponding to them. M. Dugono has a whole volume of schemes or projects of books, amounting to not less than *three thousand*!

§ ix. *Miscellaneous Denominations of Books.*—It remains only that we notice a few miscellaneous denominations given to books; an acquaintance with which will facilitate the study of the young bibliographer.

1. *Acroamatic* or *Acroatic* books, are those which contain more secret or sublime matters, and are calculated only for proficient in the subjects discussed. Reimann published a *Biblio-*

¹ Rees's Cyclopædia, vol. iv. article *BOOK*; from which and from the observations scattered through the volumes of Peignot and Achard, the materials of this section have partly been derived.

theca Acroamatica of the Imperial Library at Vienna, in octavo. It is an abridgment of Lambecius's and Nessel's catalogues of that magnificent collection of books.

2. *Authentic* books are those which are decisive and of authority;—such, in the civil law, are the Code, Digest, Novellæ, &c.; in our own law, the Statutes at large, printed by his Majesty's printer, &c.

3. *Auxiliary*; those less essential, yet of use, as being subservient to others; as, in the study of the law, books of reports, institutes, maxims, &c.

4. *Bibliothecæ*, or Libraries, are collections of books on particular subjects, containing treatises by numerous authors, or digests of all the authors who have treated of a certain subject. Of the former class is the *Bibliotheca Patrum*, or collection of the writings of the fathers of the Christian church. Of the latter are the *Bibliothecæ*, *Antiquaria*, *Ecclesiastica*, *Græca*, et *Latina*, of the celebrated bibliographer John Albert Fabricius;—the *Bibliotheca Hebræa* of Wolfius; the *Bibliotheca Sacra* and *Bibliothèque Historique de la France*, of Father Lelong; the English, Scotch and Irish Historical Library of Bishop Nicholson, &c. Almost every branch of human science has now its *Bibliotheca* or Library.

5. *Canonical* books are those received and allowed by the Christian Church to be parts of the Holy Scriptures. Such are the books of the Old and New Testaments, as they are commonly bound up together.

6. *Church or ecclesiastical* books are those used in the public offices of religion, as breviaries, missals, the Book of Common Prayer, &c.

7. *Classics*. The title of classic is properly given to those Latin books only whose authors lived in the Augustan age, when the Latin tongue was in its greatest purity. The works of these writers being read in the classes, at schools and in colleges, have thence been denominated classics. This term also comprehends the purest writers of Greece, and also those whose authority is received in the schools. Thus, St. Augustine and Thomas Aquinas were formerly quoted as classics in the divinity-schools; Aristotle in the school of philosophy, and so of the rest. First-rate authors in all modern languages, are considered as the classics of the countries, in which they respectively flourished.

8. *Elementary* books are grammars, principles, rudiments, &c. which exhibit the first principles of any science; and are thus distinguished from books of a superior order, which profess to make further advances in the sciences.

9. *Esoteric* books are those intended for adepts;

as *exoteric* are designed for the use of popular and ordinary readers.

10. *Library books* are such as are not usually perused, but kept for occasional reference and consultation: of this description are dictionaries, encyclopædias, &c.

11. *Spiritual* books treat expressly on the spiritual or Christian life, and its various exercises, as contemplation, prayer, &c.

The Romans also had books known by peculiar denominations; as the *augural* (*libri augurales*, by Cicero termed *reconditi*); those of the *aruspices* (*libri aruspicini*); the *acherontic*, also called *libri Etrusci*, from their supposed Etruscan origin; the *fulgural* (*libri fulgurantes*); the *fatal*, or books of destinies, which were consulted in all public calamities; and the *Sibylline*, those said to be composed by the Sibyls, and deposited in the Capitol. A copious account of these various books is given by Lomeier, in his treatise *De Bibliothecis* (cap. vi.), and by Pitiscus, in his *Lexicon Romanarum Antiquitatum* (vol. ii. pp. 84, *et seq.*); from whom most modern writers have transcribed their accounts.

SECTION II.

On the Forms and Sizes of Books—Different Styles of Book-binding.

A KNOWLEDGE of the forms of books is essential to the bibliographer, not only to enable him to arrange books in a library, or in a catalogue, but also to prevent confusion in describing editions.

The form or size of a book depends upon the manner in which it is folded : thus a sheet folded into two leaves is a folio ; into four, a quarto ; into eight, an octavo, &c. ; and each sheet is designated by a letter of the alphabet, placed in succession at the foot of the first page, and termed a *signature* ; its use is, to distinguish the different sheets and pages, and consequently to facilitate the labour of the bookbinder. As, however, some of the smaller forms cannot be distinguished very readily, it becomes necessary to refer to the water-lines in the paper which indicate the size : but as books printed on vellum paper do not exhibit these water-marks, their size will best be ascertained by a careful attention to the signatures and pages, and also to the catch-words usually found at the right hand corner of each page ¹.

A printed sheet, when folded into two leaves,

¹ On the origin and uses of signatures and catch-words, vide *infra*, chap. ii. sect. 1.

is called a folio, and contains four pages. A quarto sheet folded into four, contains eight pages.

| | | | | | | |
|--------|-----|-----|--------|-------|-----|--------|
| An 8vo | has | 8 | leaves | - - - | 16 | pages. |
| A 12mo | — | 12 | — | - - - | 24 | |
| 16mo | — | 16 | — | - - - | 32 | |
| 18mo | — | 18 | — | - - - | 36 | |
| 24mo | — | 24 | — | - - - | 48 | |
| 32mo | — | 32 | — | - - - | 64 | |
| 36mo | — | 36 | — | - - - | 72 | |
| 48mo | — | 48 | — | - - - | 96 | |
| 64mo | — | 64 | — | - - - | 128 | |
| 72mo | — | 72 | — | - - - | 144 | |
| 96mo | — | 96 | — | - - - | 192 | |
| 128mo | — | 128 | — | - - - | 256 | |

The water-lines in the sheets of paper are perpendicular in the folio, 8vo, 18mo, 32mo, 72mo, 96mo, and 128mo forms: in every other size they appear horizontally, except in 24mo, in which the water-lines are sometimes perpendicular, and sometimes horizontal. In order to ascertain its denomination correctly, the book should be opened between pages 48 and 49; if the catch-word be at the foot of page 48, and the signature at the bottom of page 49, the form is in 24mo; but if the catch-word is at the foot of page 64, and the signature at the bottom of page 65, the form is in 32mo. In some *modern* works, however, particularly the productions of the French press, catch-words are altogether omitted; and for the signatures

usually given, the number of the half-sheet or sheet is printed at the foot of the first page of each, in Arabic figures.

In general, most forms of books may be distinguished at sight, though mistakes are frequently made with regard to the size of the paper. Every book is either in large or small paper: in folios, there are different sizes, as elephant, imperial, atlas, super-royal, royal, crown, copy, demy and medium folios; quartos are imperial, royal, medium and demy: octavos are imperial, super-royal, royal, demy, medium, crown, foolscap, and copy;—duodecimos are royal, demy and medium; similar distinctions also exist with regard to the smaller sizes, which can only be ascertained by examination of the signatures. Thus, a small foolscap or copy octavo volume may easily be confounded with a duodecimo book, when placed on the same shelf; and a super-royal or imperial octavo, with a small quarto. These mistakes are not material in the arrangement of books upon shelves; but very important bibliographical errors would arise from them, if, in a catalogue, a small octavo were described as a duodecimo. Editions would thus be created, which never had any existence.

In the infancy of printing, before the art became generally known, the books were made to

imitate in the most minute particulars, those which had preceded them from the hands of the scribes: hence they were printed on vellum, until that article became scarce through the multiplication of copies, when paper was manufactured to resemble vellum, and substituted in its place. The scribes prepared their parchment according to the sizes of the books which they wrote, which were mostly folios and quartos; few were octavo, and some were of a smaller size for children. Paper was made for books, the dimensions of which corresponded with those on parchment; the sizes of the books were chiefly folio and quarto, with some few octavos. Where any difficulty occurs in ascertaining the form of books on this sort of vellum paper, a very close inspection of the water-lines, which may sometimes be discovered, will help to determine the size of the volume. Folios, quartos and octavos may also be respectively distinguished by careful observation of the watermark, made by the paper-manufacturer in each sheet; if this be found in the middle of the sheet, the volume is in folio; if it appear at the bottom of the volume, it is in quarto; and if at the top of the sheet, it is in octavo.

Some Bibliographers have supposed that books were not printed in the octavo and smaller forms, earlier than 1480. M. Peignot, however, has

mentioned a *Diurnale seu Liber Precum*, printed at Venice, in 1478, in 24mo; and a *Psalterium Davidis*, by Joannes de Westphalia, about 1480, in 18mo, &c. The principal works of the fifteenth century known to be printed on paper without water-lines, are *Pompeius Festus de Verborum significatione*, 1471, 4to;—*Juvenal and Persius*, 1479, 4to;—*Vita del Padre san Francesco, per Bonaventura Cardinale*, 1477, 4to;—and *Quintus Curtius*, 1481, 4to; all printed by Antonio de Zarotis, at Milan. The above-mentioned works are all considered as being in quarto and not in folio; because the lines, running in a direction contrary to the imperceptible water-lines in the paper, are perpendicular. The *Cosmographia* of Pomponius Mela, printed by Zaroti, (Milan, 1471,) is in octavo, and not in quarto, the transverse lines running horizontally.

The art of bookbinding is unquestionably of great antiquity: by some it has been conjectured to be almost as antient as the science of composing books; as, on whatever material men first wrote, the several parts must necessarily be united together, as well for convenience, as for their better preservation; and hence the origin of bookbinding.

Two methods of binding books were antiently practised,—one, that of *rolling* them on cylinders or round pieces of wood, whence they were termed *volumes*, from the Latin word *volvendo*, and *rolls* from *rota*¹; the other, that of binding them square, and sewing several quires one over another. The first is in all probability the earliest, and was practised long after the age of Augustus: it is now disused, except in the Jewish Synagogues, where the law continues to be written on vellum sewed together, forming as it were one long roll or page, with two rollers (the projecting ends of which were formerly termed *cornua*, horns,) and gold or silver clasps at each extremity². The second or *square-binding*, is said to have been invented by one of the Attali, kings of Pergamus, and from its convenience has continued to be adopted in every age and country. It is performed in the following manner:—

The leaves are first folded with a flat piece of ivory, termed a *folding-stick*, and laid over each other in the order of the signatures; then beaten on a stone with a hammer, to make them smooth and open freely, and afterwards pressed. Next,

¹ De Vaines, tom. 2. p. 176.

² To this mode of binding antient writings, there are many allusions in the Scriptures. Compare Psal. xl. v. 7. Jerem. c. xxxvi. v. 2. Ezek. c. ii. v. 9. and Luke, c. iv. v. 17.

they are sewed upon bands, which are pieces of cord or packthread, six bands being allowed to a folio book, five to a quarto, octavo, &c. This is done by drawing a thread through the middle of each sheet, and giving it a turn round each band, beginning with the first and proceeding to the last. The books are then glued, and the bands opened and scraped, for the better fixing of the pasteboards; the back is turned with a hammer, and the book is fixed in a press between two boards, in order to make a groove for fixing the pasteboards. These being applied; holes are made for fixing them to the book, which is pressed a third time, and is at length conveyed to the cutting-press between two boards, the one lying even with the press, the other above it, for the knife to run against.

The next operation is the sprinkling of the leaves, which is done by dipping a stiff-haired brush into a coloured liquid, holding the brush in one hand and spreading the hair with the other: by this motion the edges of the leaves are regularly sprinkled. It now remains to fix the covers, which are either of calf or sheep-skin: after being moistened in water, they are cut out to the size of the book, then smeared over with a strong paste made of wheat-flour, stretched over the pasteboard on the outside, and doubled over the edges within side; after

having first taken off the four angles, and indented and platted the cover at the head-band. This manipulation being done, the book is bound firmly between two boards and set to dry. It is afterwards washed over with a little paste and water, and sprinkled with a fine brush, unless it is designed to be marbled; when the spots are to be made larger by mixing the ink with vitriol. The book is then finished off, by glazing it twice with the white of an egg beaten, and by polishing it with a polishing-iron passed hot over the glazed cover.

The letters or other ornaments on books are made with gilding tools, engraven in relief, either on the points of puncheons or around little cylinders of brass: the puncheons make their impressions by being pressed flat down, and the cylinders by being rolled along by a handle, to which they are fitted on an iron axis. In order to apply the gold, the binders glaze the parts of the leather with a liquor made of the whites of eggs, by means of a piece of sponge; and when nearly dry, the pieces of gold-leaf are laid on, and the tools, being previously made hot in a charcoal fire, are applied. The titles of books are usually lettered on a piece of leather, of a colour different from that of the cover of the book itself, which is glued on before the letters are impressed: but, as these lettering

pieccs become loose by the lapse of time, a better mode is to have the part intended to be lettered, first coloured black or blue, and the title, &c. stamped thereon.

Calf and sheep-skin leather is chiefly used, and is variously coloured according to fancy; but for splendid or curious works Morocco leather (of different colours) and Russia leather are usually preferred; the powerful odour of the last is caused by its being strongly impregnated with cedar oil. In general we have found a deep brown to be the best colour for calf-binding; it is not liable to fade, and its appearance improves by age.

There are different styles of binding—Thus, in *half-binding* the leaves are generally un-cut, the back and corners only are covered with leather, the paste-board sides being covered with marbled, blue or other coloured paper.—*Law-binding* is confined to law-books; the leather is a whitish-brown, and the leaves are not coloured. In *Italian-binding*, or binding *alla rustica*, a coarse thick paper is employed, which very soon wears out, unless it be used with the greatest care. *Dutch-binding* is where the backs are of vellum.

Manuscript books, and those printed for many years after the first invention of types, were variously decorated in binding. Strength

appeared to be the first object, neatness the second, and elegant works were executed for those, who possessed both the means and the inclination to pay for them. They were sewed on single or double bands, of strength proportioned to the bulk of the work: they were fastened to boards of compact wood, of a proper size, and planed to a suitable thickness. The boards were covered with parchment, or with leather, and then impressed with divers figures: sometimes brass ornaments were affixed to the sides, and pieces of brass were put on the corners of the books, doubtless with the view of contributing to their durability. Some of the most elegant books were covered with clear vellum, then overlaid with gold leaf, and impressed with a stamp nearly the size of the boards, and others were handsomely ornamented; after which they were clasped. Stamps with various devices were used for that purpose; and the year, in which the book was bound, appeared in large figures on its covers¹.

Of the progressive improvement in bookbind-

¹ Mr. Dibdin has, in his "Bibliomania" (p. 159.) given an engraving of Luther and Calvin, from the covers of a book, bound (A. D. 1569.) in thick parchment or vellum. These portraits, he observes, are executed with uncommon spirit and accuracy, and encircled with a profusion of ornamental borders, of the most exquisite taste and richness.

ing, the public Libraries of Europe would doubtless exhibit many specimens : and much information might be obtained by the diligent bibliographer who should compare the various styles of binding in different ages. The following hints on this curious subject are confessedly imperfect ; but they are the fullest the author could obtain, after diligent research.

In France, before the reign of Francis I., most of the books in the Royal Library were covered with velvet, or other precious stuffs, of every fashion and colour. The leather bindings were very simple, and differed according to the countries where the books had been bound : excepting some presents and a small number of favourite authors, all his Latin, Italian and French Manuscripts were covered with indifferently wrought black leather. Such Greek MSS. as were not bound after the oriental style, were bound in morocco of various colours, with smooth backs and without bands ; the arms of France, with the insignia of Francis I. (a Salamander and the letter F.), were stamped in gold or silver. The dolphins, added to the salamander, indicate the book to have been bound in the time of Francis, not for the King but for the Dauphin.

The books bound for Henry II. are known by his insignia, or by his ciphers formed of the

letters H. and D. interwoven with crescents, bows, quivers, and other symbols of the chace. The Imperial Library at Paris contains nearly 800 volumes bound in this style, but with more neatness than those done in the time of Francis I. It exhibits however only a few of the reign of Francis II. which are marked with an F. crowned, and followed by the number II. Sometimes it is accompanied by the mark of Charles IX. which seems to have been done by the binder, in whose hands the book was, at the death of the former.

The books, stamped with the cipher of Charles IX. are more numerous: they are marked with two C.s reversed and interwoven, and sometimes with K. surmounted with a crown.

Under Henry IV., the celebrated historian De Thou was master of the Royal Library: by his direction many volumes were bound, almost all in red morocco, stamped with the arms of France, and with the letter H. in the four corners, sometimes followed with the number IIII, and sometimes without the letter. In this case, the arms of France are on both sides, or instead of these occurs the following inscription:—*Henrici IIII. patris patriæ virtutum restitutoris.* In some volumes, the letter H., the number IIII. and the inscription are found altogether.

In the reign of Louis XIII. and the following

kings, the books ceased to be distinguished by the different reigns; the arms of France with the King's cipher, and some fleurs-de-lis sprinkled on the backs, and in a few instances, on the sides of the books, constitute the only marks. During the French revolution, the Royal Library narrowly escaped mutilation, from the blind zeal which devoted to destruction whatever bore the impress of royalty. A law was opportunely passed, which has preserved this invaluable collection for the use of posterity.

The most eminent Bookbinders of France are Grolier¹, Deseuille, Padaloup, De Rome, Bozerian of Paris, and Noël of Besançon.

In England, the monks and students were, antiently, the binders of books²; and it appears to have been considered as a part of the sacrist's duty to bind and clasp the books: of their ingenuity and skill the various missals and other devotional works, preserved in public and private libraries, are abundant evidence.

One of the earliest specimens extant is a Latin MS. usually known by the name of *Textus Sancti*

¹ Many books of Grolier's binding are to be found in Mr. Cracherode's Collection in the British Museum: though more than two centuries have flown since they were executed, they still exhibit to advantage his admirable style.

² Warton's Hist. of English Poetry, vol. ii. p. 244, note x. Dibdin's Bibliomania, 8vo. p. 157. Mr. D. has given some curious items of sums paid for bookbinding.

Cuthberti, now preserved in the Cotton Library (Nero D. IV :) it was adorned in the time of the Saxons by Bilfrid, a monk of Durham, with a silver cover gilt and precious stones. This Bilfrid is described by Simeon of Durham as being *aurificii arte præcipuus*¹.

Mr. Astle has also mentioned the following : —“ A Booke of Gospelles, garnished and wrought with antique worke of silver and gilte with an image of the crucifix, with Mary and John, poiz together cccxxij oz.” In the secret Jewel House in the Tower. “ A booke of Gold enameled, clasped with a rubie, having on th’ one syde a crosse of dyamounds, and vij other dyamounds, and th’ other syde a flower de luce of dyamounds, and iiij rubies with a pendaunte of white saphires and the armes of Englande. Which booke is garnished with small emerades and rubies hanging to a cheyne pillar fashion set with xv knottes, everie one conteyning iij rubies (one lacking)”². These books were thus gorgeously attired (Mr. Dibdin thinks) before the discovery of printing.

The Bedford Missal is another splendid instance of the taste and ingenuity of the monks : this beautiful and rich book of offices contains fifty-nine large miniatures, occupying nearly the whole page, and above a thousand small

¹ Simeonis Dunhelm. Hist. Eccles. Dunhelm. p. 117.

² Archæologia, vol. xiii. p. 220.

ones, in circles of about an inch and a half diameter, displayed in brilliant borders of golden foliage, with variegated flowers, &c. At the bottom of every page are two lines in blue and gold letters, which explain the subject of each miniature; a circumstance peculiar to this expensive performance. Among the pictures it contains, is an interesting one of the whole length portraits of John Duke of Bedford (Regent of France, temp. Henry VI.,) and of his Duchess, whose arms frequently appear, and attest their delicate affection for each other; the motto of the former being, *à vous entier*, that of the latter, "*j'en suis contente.*" The dimensions of this magnificent bijou are, eleven inches by seven and a half in width, and two inches and a half in thickness; it is bound in crimson velvet with gold clasps. The Duke of Bedford gave it to his nephew the unfortunate Henry VI. as a most suitable present¹.

¹ At the commencement of the last century it was bought of the Somerset family by the second Earl of Oxford; from whom it came into the possession of the late Duchess of Portland, at whose sale it was bought by Mr. Edwards of Pallmall, for 215 guineas, in whose possession it now remains. An account of this rich illuminated missal, was published in 1794, 4to. by the late Mr. Gough, with 4 plates, containing an outline of as many miscellaneous paintings, with all their accompanying ornaments.

In the very valuable catalogue of French books published by Messrs. Dulau and Co. for 1813, is a *Ceremoniale Romanum*,

The *Golden Manual of Prayers*, formerly in the possession of Queen Elizabeth, deserves also to be particularly mentioned : it is bound in solid gold, and (it is said) was usually worn by her, hanging by a gold chain at her side. The annexed engraving accurately represents the subjects delineated on this most precious little vo-



lume. On one of the covers is represented the in small folio, in its curious antique binding (with a case) which they estimate at £300!! It is a very beautiful MS. on vellum of the fourteenth century, and of most splendid execution : it was made by the order and at the expense of Calderini bishop of Ceneta, whose arms appear on several of the leaves. The characters are very large, and the very numerous miniatures exhibit splendid representations of animals, birds, fruits, and grotesque figures.

judgment of Solomon ¹, whose sentence appears in a line round the four sides of the cover; on the other side is delineated the brazen serpent, with the wounded Israelites looking at it; the motto round the sides is the divine command given to Moses, relative to the making of this serpent².

The public libraries of this country contain very numerous specimens of splendid binding, particularly the British Museum, one or two instances of which must suffice.

The first shall be the very curious book of indentures, dated the 16th July, in the 19th year of Henry VII. (Harl. MSS. No. 1498.) and made between him and the Abbot and Convent of St. Peter's Westminster, for certain masses &c. &c. to be performed in Henry VII.'s chapel then intended to be built. It is indeed a most

¹ 1 Kings, c. 11. v. 27.

² Numb. c. xxi. v. 8.—A copious description of this literary curiosity is given by the late accurate antiquary, Mr. Herbert, in the Gentleman's Magazine, vol. lxi. pt. 1. pp. 27—29, from which the above engraving is taken, by the indulgence of Mr. Nichols, the proprietor of that valuable miscellany. In the same work, vol. lx. pt. 11. pp. 618, 701, 702, 785—787, is printed a manual of devotions, formerly belonging to Queen Catherine Parr, and at that time belonging to John Levett, Esq. It is a MS. on vellum, and bound in a singular manner in plated silver. The Codex Ebnerianus of the New Testament is also bound in silver, curiously inlaid with ivory. See it briefly described in the Appendix, No. VIII.

noble and curious book : the cover is of crimson velvet, edged with crimson silk and gold thread, and with tassels of the same material at each corner ; the inside is lined with crimson damask.

On each side of the cover are five bosses, made of silver wrought and gilt : those in the middle have the arms and supporters of Henry VII., with his crown and supporters made of silver gilt, and enamelled ; in the others at each corner are so many portcullises, gilt and enamelled. It is fastened by means of two hasps, made of silver gilt and splendidly enamelled with the red rose of Lancaster. The counterpart of these indentures, bound and decorated in all respects like the original, is preserved in the Chapter House at Westminster.

The celebrated charter, (Harl. MSS. No. 7513, erroneously attributed to King Edgar,) is splendidly bound in red morocco and lettered *CARTA REGIS EADGARI: MARIUM BRIT. DOMINI*: it is placed on a green silk cushion, and covered with a large plate of glass ; the whole is inclosed in a wooden box lined with green velvet¹.

¹ Beside these splendidly executed MSS. the library of the British Museum contains some fine specimens of foreign binding : those by Grolier have already been mentioned (note 1, p. 300.) In addition to which, we may notice many volumes formerly belonging to the president De Thou, which were bound more than two centuries since : some of them were imitated by the late Roger Payne.

The late Mr. Hollis¹ was accustomed to decorate his books in a singular manner: he employed the celebrated artist Pingo to cut a number of emblematical devices, as the caduceus of Mercury, the wand of Æsculapius, the cap of liberty, owls, &c.; and with these devices the backs and sometimes the sides of his books were ornamented. When patriotism animated a work, instead of unmeaning decorations on the binding, he adorned it with caps of liberty, and the pugio or short sword used by the Roman soldiers; when wisdom filled the page, the owl's majestic gravity indicated the contents;—the caduceus pointed out eloquence; and the wand of Æsculapius was the signal for good medicines, &c. &c.

Among the most eminent English binders of former times, the names of Kalthoerber, Baumgarten, Faulkener² and above all the family of Ferrars, and Roger Payne, deserve especial notice for the taste and skill displayed in their works.

¹ Gent. Mag. vol. li. p. 420.

² It would be injustice to the memory of an honest, industrious and excellent bookbinder, not to notice the name of the late Henry Faulkener, "who in his mode of re-binding antient books was not only scrupulously particular in the preservation of that important part of a volume,—the margin; but in his ornaments of tooling, was at once tasteful and exact." Dibdin's *Bibliomania*, 264, note. His family still carry on the same concern, and with equal attention and civility.

The family of Ferrars, which settled at Little Gedding in the county of Hertford in the reign of James I., is chiefly known for the ascetic piety of its members : but as industry formed an essential part of their rule, the family was taught the art of bookbinding in all its parts. The fame of their work reached the ears of Charles I. to whom a splendid Concordance of the four Evangelists was exhibited, adorned with many beautiful pictures, and bound by one of Nicholas Ferrars's nieces, " all wrought in gold, in a new and most elegant fashion." Dr. Wordsworth has given several instances of the magnificent works executed by individuals of this family, which our limits forbid us to describe¹.

To the late Roger Payne, foreign Bibliographers are constrained to yield the palm of excellence in the art of bookbinding. He worked alone in a small apartment, where every thing was huddled together ; on the same shelf were seen old shoes and precious leaves—bread and cheese, with editions of the fifteenth century—so that it would seem next to impossible that superb binding should proceed from such a place, to decorate the library of a noble Lord, without being either soiled or spotted with grease. The most difficult bindings were those,

¹ Ecclesiastical Biography, vol. v. pp. 172—178, 216, 220, 237.

in which Roger Payne excelled : this ingenious man introduced a style of binding, uniting elegance with durability, such as no person has ever been able to imitate. He may, indeed, be ranked among artists of the greatest merit : the ornaments he employed were chosen with classical taste, and were in many instances appropriated to the subject of the work, or the age and time of the author ; and each book of his binding was accompanied by a written description of the ornaments in a most precise and curious style. His *chef d'œuvre* is his *Æschylus*, in the possession of Earl Spencer, the ornaments and decorations of which are most splendid and classical ; the binding of the book cost the noble Earl fifteen guineas. Those, who are not accustomed to see book-binding executed in any other than the common manner, can have no idea of the merits of Roger Payne, who lived without a rival, and (we fear) died without a successor¹.

¹ Roger Payne died in 1797 ; and his remains were decently interred at the expense of that respectable and upright bookseller the late Mr. Thomas Payne ; to whom (though in no degree related to the bookbinder,) the admirers of this art may feel themselves indebted for the prolongation of his existence ; Mr. P. having for the last eight years of his life supplied him with regular pecuniary assistance, both for the support of his body and the performance of his work. Nichols's Lit. Anecdotes, vol. iii. pp. 736, 737. Gent. Mag. vol. lxxvii. Part II. pp. 1070, 1071.

In concluding this short historical account of bookbinding, it may be expected that some notice should be taken of the living artists whose works adorn our libraries: but where so many excel, it would be invidious to specify any individuals. Yet we cannot but mention, Messrs. Edwards, eminent booksellers of Halifax, in Yorkshire; whose style is unique, and has not hitherto been successfully imitated abroad: they have introduced several new styles of tasteful decoration to books, instead of profuse gilding, an imitation in their proper colours of the borders of Greek or Etruscan vases, and also a new method of ornamenting vellum bindings with exquisite drawings, but of which on account of their expense few were executed. To Messrs. Edwards the lovers of ornamented books are indebted for a method of gilding upon marbled leaves, and decorating the edges of leaves with exquisite paintings: we have seen landscapes thus executed, with a degree of beauty and fidelity that are truly astonishing; and when held up to the light in an oblique direction, the scenery appears as delicate as in the finest productions of the pencil¹.

¹ A copy of the Book of Common Prayer, (printed at Oxford in 1774,) bound by Messrs. Edwards, in the style above described, produced £2. 12s. 6d. at the sale of the Merly Library, (No. 524.)

SECTION III.

*Miscellaneous Remarks on the Preservation, &c.
of Books.*

Books are liable to incur much damage from the ravages of insects ; two species of which are particularly destructive, viz. the *anthrenus* or flower-beetle, and the *pilinus*.

The former insects attach themselves exclusively to herbals, and produce much devastation in cabinets of natural history. In order to prevent such ravages, the binder ought to put a little alum or vitriol, or some similar mineral preparation into his glue ; the books should also be carefully rubbed, at the end of March, May, and September, with a piece of woollen stuff sprinkled with pulverised alum. Generally speaking, the tops of the books ought to be frequently dusted ; as that operation is favourable to the discovery of insects : when the covers or interior of the volumes are affected by them, a little pulverised coloquintida or bitter apple may be strewed over them. The surest way however is to beat them, place them in the open air, and expose them to a fumigation with sulphur : the vapor of this mineral destroys the insects, in a perfect state, but produces no effects on their eggs ; so that they must be carefully watched until they are hatched.

The insects which do so much damage in libraries are the larvæ of the *ptinus fur* L. and the *ptinus mollis* L. or the *anobium mollis* of Fabricius. The latter perforate the leaves of a book in sinuous furrows, like those made by a silkworm when devouring a mulberry leaf: the former pierce them through, almost in a straight line. M. Peignot mentions an instance, where, in a public library that was but little frequented, *twenty-seven folio* volumes were perforated in a straight line by the same insect in such a manner; that, on passing a cord through the perfectly round hole made by the insect, these twenty-seven volumes could be raised at once!!! This fact, he adds, was attested to him by an eyewitness. M. Peignot gives the following preventive remedies against the ravages of insects, from the "*Dictionnaire de l'Industrie.*"

The cause of these ravages is to be attributed to the pasteboards and to the glue, employed by bookbinders. Fruitless attempts have been made to mix wormwood, coloquintida and other bitters in the paste: the only remedy is in the mineral salts, such as alum¹, vitriol, &c. and

¹ Many processes, says M. Achard, have been published, for preventing worms from attacking books: I have used them all, or caused them to be tried, but without success. The only one which succeeded with me, is the addition of a little sulphat of alumine (alum) in the bookbinders' paste: but these artisans he complains are not complaisant enough to mix

not in pot-ash, salt of tartar, and similar vegetable salts. In 1741, M. Prodiger published (in German) some instructions to bookbinders: he recommends them to substitute starch for flour, in making their paste, insects being less fond of the former. Further, in order to preserve books from their attack, some pulverised alum, mixed with a little fine pepper, should be put between the book and the cover; and a little may also be strewed upon the shelves of the library: and lastly, the books should be *well rubbed* in March, July, and September, with a piece of woollen cloth, strewed with powdered alum. The placing of small bags of pulverised pepper upon the shelves will also prevent depredations: and the progress of mischief, already commenced, has been stayed, by strewing pepper among the damaged leaves.

Where engravings or books become brown, or are accidentally stained, Chaptal recommends a simple immersion of them in oxygenated muriatic acid, for a longer or shorter space of time, according to the strength of the liquid; which will suffice to whiten an engraving. But, in whitening the paper of a bound book, it is ne-

the alum with their glue: this process must be performed before their eyes. It is neither expensive nor difficult, and (he adds) "I have always been fully satisfied with it." Achard, *Cours de Bibliographie*, tom. 3. p. 217.

cessary that all the leaves should be moistened by the acid : and therefore the book must be well opened, and the leaves separated ; and the boards must be made to rest on the edge of the vessel, that contains the whitening liquor. In the course of the process, this liquor assumes a yellow tint, and the paper becomes proportionably white. At the end of two or three hours, the book may be taken from the acid liquor, and immersed into pure water ; which should be renewed every hour, to extract the remaining acid, and dissipate the disagreeable smell.

In order to render this process more effectual, the bookbinders destroy the binding, unsew the book and separate its leaves :—they then place these in cases, formed in a leaden tub with very thin slips of wood or glass ; so that the leaves may lie flat, and separate from each other at small intervals. The acid is then gently poured into the tub without deranging the leaves : when the paper is become sufficiently white, the acid liquor is drawn off by a cock at the bottom of the tub ; and its place is supplied by clean, fresh water. The leaves are then dried ; and, after being pressed, are re-bound.

By this operation books are not only cleaned, but the paper acquires a degree of whiteness, superior to that which it possessed when first manufactured. By means of the oxygenated

muriatic acid, ink-spots may also be extracted ; but spots of oil or animal grease can only be removed by the application of a weak solution of pot-ash, or by the following process recommended by M. Deschamps. He directs as much as possible of the grease to be removed by means of blotting-paper ; after which a small brush, dipped in the essential oil of well rectified spirit of turpentine heated almost to ebullition, is to be drawn gently over both sides of the paper, which must be carefully kept warm. This operation is to be repeated as often as the quantity of the grease imbibed by the paper, or the thickness of the latter, may render necessary. When the grease is entirely removed, the paper may be restored to its former whiteness by dipping another brush in highly rectified spirit of wine, and drawing it in a similar manner over the stained place, and particularly round the edges, in order to obliterate the border which would still present a stain.

CHAPTER II.

On the Knowledge of Books, their relative Value and Scarcity.—Prices of Books, &c.

SECTION I.

On the Difference between antient and modern Editions.

IN the infancy of printing, it has already been observed, the first productions of the press were made closely to resemble manuscripts, particularly in the forms of the letters. Hence, in early printed books the characters were of an extraordinary size, as in the celebrated bible of Mentz: by degrees the printers diminished their types; the alterations in which are easily perceived since the close of the fifteenth century.

The first printed books are totally destitute of figures at the top of the pages, as well as of signatures and catch-words: at first, when the printers began to number their pages, they placed large Roman figures at the top of the *recto* of each leaf, and they reckoned by leaves instead of pages; afterwards, each page was numbered by Arabic figures, the use of which is retained to the present time.

The following are the marks, by which edi-

tions of the fifteenth century, without date, may be ascertained.

1. The absence of titles printed on a separate leaf.

It was not till 1476 or 1480, that the titles of books were printed on detached leaves: titles to chapters were first used in the Epistles of Cicero, printed in 1470.

2. The absence of capital letters, at the beginning of divisions.

In the infancy of typography, the printers were accustomed to leave blank spaces at the commencement of books and chapters; which the purchasers of the books afterwards caused to be filled up by the illuminators, who placed the initial letters on these blanks, accompanied by some miniature, or by some ornament of gold or in various colours¹.

3. The rare occurrence of such divisions.

4. The disuse of commas and semi-colons.

This was a consequence of the exactness, with which the antient printers imitated manuscripts. Some remarks on the punctuation of early printed books have been given in a former page².

5. The inequality and thickness of the types.

Although this defect is justly imputable to some editions of the fifteenth century, yet others are extant, which are not inferior to some of the best modern printing.

6. The solidity and thickness of the paper.

This mark also is a consequence of the close manner in which MSS. were imitated; the paper being manufactured so as to resemble vellum as much as possible

¹ Vide *supra*, Part I. ch. III. sect. vii. p. 250—252.

Vide *supra*, p. 238.

7. The great number of abbreviations.

Of these we have already treated, (*supra*, pp. 118—121, 228): in addition to the remarks there made, it may be observed that *z* was commonly used for *et*; *neq³* and *quib³* for *neque* and *quibus*; *cpacone* for *comparatione*; the letter *q* was frequently printed with a cross along its tail thus *q̄*, in order to express *quam*, *quod*, &c. &c.

8. The absence of the printer's name, of the place where, and the date of the year when, the book was printed.

9. The absence of signatures and catch-words.

Signatures are those letters of the alphabet, which are put at the bottom of the right-hand pages of sheets, to distinguish their order. When the alphabet is finished, a second begins, A a, instead of a single A; and when that is terminated, A a a are given for the third, and so on. In order to indicate more correctly the order of each sheet, printers add to the initial letter some figures on the third, fifth, and seventh pages: the numbers of these figures, which do not pass the middle of the sheet, point out the size of the edition. Thus A 2, on the third page, A 3 on the fifth, and A 4 on the seventh page, shew a work to be in *octavo*. In the duodecimo size, A 5 occurs on the ninth page, and A 6 on the eleventh page, &c.

In some modern French works, figures are substituted for letters, and the other leaves are marked by asterisks.

The invention of signatures is ascribed by M. Marôles to John of Cologne, who printed at Venice in 1474: the Abbé Rive attributes it to John Koelhof, a printer at Cologne, and cotemporary with the former; from whom

we have a work dated in 1472. It is intituled (according to Laire, for Rive has only alluded to the book) *Joannis Nyder preceptorium divine legis*, folio, with the following subscription: *Impressum colonie per magistrum Joannem Koelhof de Lubick, anno Dni MCCCCLXXII.* In his notice of this work, Laire remarks, *Folia signantur ab a. ad mmijj, iterato alphabetico progressu.* This account of Laire is confirmed by Santander; who adds that this book is the more remarkable as being the first that issued from Koelhof's presses. The subscription is followed by twenty-eight leaves, *without signatures*, containing the alphabetical table of matters¹.

Catch-words (*Literæ reckamantes* or *custodes*) are those words, formerly placed at the right-hand corner of the blank line, which terminates each page of a sheet: they are always the same as those with which the following page begins. Their use is to assist the bookbinder in his work, and to prevent mistakes in arranging the sheets. Catch-words are found in MSS. of the eleventh century, and were first applied to printing, by Vindelino de Spira at Venice²: they are now almost generally disused, both in England and on the Continent.

Prior to the use of catch-words, printers had recourse to a *register*, or alphabetical table of the first word of the chapters; in order that the binder might properly dispose the sheets for sewing. Registers were introduced in 1469 or 1470.

¹ Laire *Index Librorum*, tom. 1. p. 281. Santander, *Dict. du XV. Siecle*, tom. 2. p. 207, who refers to a dissertation of his own, at the end of vol. v. of his own Catalogue, in which he treats on the first use of signatures and figures in the art of printing.

² Santander *Dict. du XV. Siecle*, tom. 2. p. 383.

SECTION II.

On the Rarity of Books.

NOTWITHSTANDING the multiplicity of books, which has afforded a fertile theme for complaint ever since the days of Solomon, there are many which it is by no means easy to obtain: their degrees of rarity may in general be estimated from the difficulties which occur in procuring them; and these difficulties increase or diminish according to the difference of times, places, and persons.

Thus, a book shall *to-day* be very common, which, ten or twenty years hence, or perhaps in less time, will be very rare. Another may easily be obtained *abroad*, which may be sought for in vain at home. A third may readily be acquired by one who has a very extensive correspondence in Europe; while it is inaccessible to another, whose connexions are confined within the limits of his own country.

As large libraries are but small, when compared with the multitude of books which have issued from the press since its invention, it frequently happens that we seek in vain for different works; either because so few copies are extant that it is morally impossible to acquire one; or because the work has been so widely circulated,

that copies almost insensibly disappear, or are nearly all withdrawn from commerce. Hence a book may be common in public libraries, which is exceedingly rare in those of private individuals: thus the *Acta Sanctorum* (a mass of various and profound learning, in *fifty-three* volumes folio) occupies a place in almost all public libraries on the Continent, but is found in few private collections, on account of the very high price it bears.

There are then two sorts or classes of scarce books; 1. Such as are *absolutely rare*, from the small number of copies which have been printed; and 2. Such as are scarce only in some respects, which may be termed *relatively rare*. To these two classes are referable all the various observations concerning the rarity of books and editions. We must not however confound *works* with the different *editions* of them which have been published. A book may be obtained without difficulty, of which exceedingly rare editions may be extant; as will be more particularly stated in the course of this Section¹.

Of Books whose Rarity is absolute.

This class may be divided into nine different articles:

¹ Essai de Bibliographie, in Duclos and Cailleau, *Dict. Bibliographique, Historique et Critique*, tom. 3. pp. 485—490. To this essay we are partly

§ 1. *Antient Manuscripts before or since the Invention of Printing.*

Original manuscripts constitute the riches of libraries: they are mostly written on vellum, and are in the highest request, especially when they are ornamented with miniatures, illuminated, and in a good state of preservation.

For an account of the age, styles of writing, illumination, and other particulars relative to MSS. the reader is referred to Part I. chap. ii. sect. ii. pp. 84—143, *supra*.

§ 2. *Works of which a very few Copies only have been printed.*

This arises, either from the abstruse nature of the subject treated in such works, and the consequently limited demand for them, or from the policy and timidity of the publisher. The recent reprints of valuable or curious old works, in this country, sufficiently illustrate this remark. But on this point the bibliographical student must not be too credulous. In the Preface to his *Considerations sur les Coups d'Etat*, (Rome, 4to, 1630) Gabriel Naudé says that he printed only TWELVE copies. M. de Colomies, however, asserts, in his *Recueil des Particularités*, that upwards of one hundred copies are extant. (*Colomesii Opera*, p. 326, 4to. Hamb. 1709.) The statement of Naudé is confirmed by Patin, who says that the impression was made to facilitate the reading of the book to Naudé's patron, Cardinal Bagni, for whom he had composed it. (*Patiniana*, p. 111.) This at least is certain, that the *Considerations* are of very rare occurrence for the general principles of the present section: some of its illustrations are, on account of their length, necessarily referred to the Appendix.

currence, although not very dear. (Peignot, *Rep. des Bibliogr. Speciales*, p. 98.)

§ 3. *Books which have been suppressed with the greatest Rigour.*

Such are all those which have been suppressed, either by religious or by political persecution,—the early productions of Protestants which were suppressed by the Roman Catholics, and the missals, legends, and other works of the latter, which fell into disuse and obscurity on the establishment of the glorious Reformation,—and books developing political principles hostile to government, or which are condemned by opposite prevailing parties in the state. Such for instance are Algernon Sidney's *Discourse on Government*, and some of the writings of Burton, Bastwicke, Frynne, Milton, Leighton, &c.!

The suppression of a work, however, does not always occasion its scarcity: on the contrary, it causes the latter to be sought after with such eagerness, that adventurous booksellers frequently reprint it, in the hope of a ready sale. The suppressed edition, however, infallibly becomes rare, either on account of part of it having escaped, or the work having been confiscated while in the hands of the printer. But reprinted editions of suppressed books seldom produce much profit: an instance of this occurs in Naudé's *Considerations sur les Coups d'Etat*, which was reprinted at Strasburg in 1673, 8vo. with a prolix commentary by the editor, Louis de May: this edition was reprinted in 1752, in 3 vols. 12mo.; neither of these reprints are held in any estimation by the

³ *Gent. Mag.* vol. lxxiv. Part I. p. 34.

curious. A list of writers who have treated on suppressed books will be found *infra*, Part III. chap. iv. sect. iii.

§ 4. *Those which have been almost entirely destroyed by some fatal Accident.*

The flames which consumed the house of John Hevelius, at the same time destroyed all the copies of his works, and particularly the second part of his *Machina Cælestis*, which must have been annihilated, had he not given some copies to his friends, before the fire happened.

By a similar misfortune, nearly all the copies of the third volume of the learned Olaus Rudbeck's *Atlantica* were consumed, excepting a few which had been delivered, as well as the different sheets already struck off of the fourth volume, together with the author's manuscript. This volume had been put to press in Rudbeck's own printing-house: but scarcely was the third sheet of the second alphabet printed, before the printing-office and its contents were consumed by a fire, which destroyed a considerable part of the city of Upsal, in May, 1702. Of the sheets printed, three or four copies were saved, according to some; according to others, five ¹.

§ 5. *Works of which a PART only has been printed, the Rest having never been finished.*

This generally happens in consequence of the editor's

¹ *Voyage de deux François au Nord de l'Europe*, tom. 2. pp. 90—109. M. Fortia de Pilles (one of the authors) has inserted a curious memoir on the very rare *Atlantica* of Rudbeck, from which the above particulars are extracted. M. Fortia's Travels in Sweden have been translated from the above work, and inserted in the sixth volume of Mr. Pinkerton's *Collection of Voyages and Travels*.

poverty, who not being able to finish his book, could never exhibit it for sale; and the work is saved from total destruction, only by a few copies being preserved by some connoisseurs or amateurs. Of this description is a *System of Divinity*, in a course of sermons on the first institutions of religion, &c. by the rev. William Davy, A. B. Lustleigh, Devon. Desirous of diffusing the most important branches of sacred science, the worthy editor compiled the sentiments of the ablest writers into a system of divinity, which he printed himself, and published his first edition by subscription in 1787, in six volumes, 12mo. Although he sustained a considerable pecuniary loss, he assiduously improved his work, and in 1795 published the *first* volume of a second and improved edition. He constructed a press himself, purchased old types at a cheap rate; and, by his own manual labour unremittingly pursued for five months, he produced FORTY copies of a specimen consisting of 328 pages, beside prefatory matter. These were distributed, in part, to such persons as the industrious author conceived most likely to appreciate the real value of his work. In this way it has been completed, in twenty-six volumes; but the edition was limited to fourteen copies. One of these is in the library of the London Institution.

§ 6. *Copies printed on larger and finer Paper than the Rest of the Work.*

Sometimes fifty or more copies of a work are printed on paper of a larger dimension and superior quality than the ordinary copies: these become exceedingly scarce as soon as they are sold. The press-work and ink are always better in these copies; which circumstance, added to the texture and beauty of the paper, as well as the

breadth of the margins, cause such books to be sought after by the curious, with the greatest avidity. The price is consequently enhanced, in proportion to their beauty and rarity, and is sometimes carried beyond all bounds.

Analogous to large paper are *tall* copies; that is, copies of a work published on paper of the ordinary size, and barely cut down by the binder. A careful acquaintance from actual observation and comparison alone can prevent serious bibliographical mistakes, and perhaps the creation of editions which never had any existence. Peignot has given an interesting bibliography of books of which small impressions (chiefly on large paper) have been printed, in his *Repertoire de Bibliographies Speciales*, Article I. Some amusing anecdotes on the subject of large paper copies occur in Mr. Dibdin's *Bibliomania*.

§ 7. *Copies of Books on Vellum and Satin.*

These works are seldom to be obtained of modern date; specimens are therefore to be found only in the early productions of the Aldine, Verard, or Giunti presses, and in those of the first English printers. They are consequently of extreme rarity, and are in the greatest request: they sell at excessive prices, two or three copies only being worked off.

M. Peignot has announced a "*Bibliothèque rare et précieuse*," entirely composed of books on vellum, with bibliographical notices, and an account of the sums for which they have been disposed of at the most celebrated sales. M. Van Praet, the Imperial Librarian at Paris, has for many years been collecting materials for a similar work¹.

¹ This most interesting bibliographical *morceau* has not yet made its appearance. According to Peignot, M. Van Praet had² (in 1806) collected

§ 8. *Copies printed on curiously coloured Paper.*

Coloured papers do not always receive the ink so as to exhibit the impression to advantage: the difficulty attending their execution necessarily limits their number, and of course enhances their prices. For a list of the principal works printed on coloured paper, see the Appendix, No. II. See also Part I. ch. i. pp. 67—71, *supra*.

§ 9. *Unique and illustrated Copies.*

A book is said to be unique “of which only one copy was printed,—or which has any peculiarity about it,—or which is remarkable for its size, beauty, and condition,—or has any embellishment, rare, precious and invaluable.” Illustrated copies are chiefly historical or biographical works, which are ornamented with every portrait of every illustrious person mentioned therein; together with every variety of the same print, whether it have

upwards of two thousand notices of books in vellum, in which he does not include books of *Hours*, unless they were printed in the fifteenth century and have a certain date. Of these two thousand articles, the Imperial Library alone supplied nearly five hundred: the others are drawn from the different public or private Libraries in Europe. As M. Van Praet has actually examined every article described, we may expect the utmost accuracy. He has pointed out the number of copies extant of every edition, the libraries or cabinets which have successively possessed them, as well as those in which they are now preserved. He mentions, for instance, *thirty-five* copies of the celebrated Mayence Bible, of 1462, *twenty-six* copies of Durand's *Rationale*, of 1459, &c. &c.; ascertains the reality of their existence, and mentions the names of those who have possessed them at different times. Peignot, Dict. Bibliol. tom. 3. p. 306. The labour of such a work must be immense. We conclude this note on vellum copies by stating that the noblest collections of such precious curiosities in this country are those of his Majesty, his Grace the Duke of Marlborough, Earl Spencer, the British Museum (bequeathed by the late Mr. Cracherode) and Thomas Johnes, Esq. of Hafod. Dibd. Bibl. 693.

the artist's character or name subjoined,--whether the head of the print be without the body or the body without the head, &c. &c.¹. Books of this description bring the most arbitrary and extravagant prices: a few instances may be seen in the Appendix, No. V.

§ 10. *Books which are become rare through Decay or Waste.*

The mere lapse of time, in connexion with the various accidents from fire, damp and worms, to which paper, the frail material of books, is exposed, is unquestionably one of the most operative causes of their rarity. If, indeed, the first specimens of printing had not been executed on a paper much superior to that in modern use; and had not the binding been, as it literally was, of boards united with strong ligatures of skin, it would be difficult to imagine how so many perfect volumes could have survived the use and abuse of between three and four centuries.

Some books have also sunk into total disuse, in consequence of their real or supposed want of merit, or from their having been supplanted by others that were cheaper, or more common in their form, or in some other respect better adapted to general use. Others have been rendered imperfect by the frequent and careless waste of them: and of both these descriptions of books, such numbers have from time to time been wasted, as unworthy of being preserved, that a copy is scarcely if at all to be procured. The literature of our own country will supply an instance in Burton's "Anatomy of Melancholy;"

¹ Dibdin's *Bibliomania*, pp. 672, 685. Mr. D. has given a lively picture of the *Bibliomaniac*, who is *touch'd* with the passion for collecting illustrated books.

a treatise which was commended and brought into notice by Dr. Johnson, and which, after being a waste paper book for many years, has lately been reprinted¹.

SECTION III.

Of Books, whose Rarity is relative.

THIS question divides itself into three classes :

1. Books which are interesting only to a few persons, or to some particular individuals.
2. Books condemned.
3. Editions whose scarcity is relative.

§ 1. *Of Books which are interesting only to a few Persons, or to some particular Individuals.*

i. LARGE WORKS.

Large or voluminous works are commonly found in great libraries; but, as the knowledge of most of our savans is more extensive than their fortune, there are few who have the means or the desire of purchasing them. Such are the *Acta Sanctorum* of the Bollandists, the Councils, the Great *Bibliotheca Patrum*, the *Bibliotheca Maxima Pontificia* of Rucaberti, the *Gallia Christiana*, the Collection of Byzantine Historians, *Thesaurus Antiquitatum Græcarum et Romanarum* of Grævius and Gronovius, with the Supplements of Polenus and Sallengrè, and other similar works².

¹ Gent. Mag. vol. lxxxiv. Part I. p. 34.

² See Appendix, (No. IX.) for an account of the principal collections of large works.

ii. FUGITIVE PIECES.

As soon as they are published, fugitive pieces are dispersed: they ought therefore to be collected in public Libraries, to prevent their destruction. Such are old Newspapers, detached tracts relative to the civil wars, electioneering placards, and similar ephemeral publications.

One of the rarest collections of this sort is that usually designated by the name of "THE KINGS PAMPHLETS," and now preserved in the British Museum. The collection at present consists of nearly two thousand volumes, (containing more than 30,000 tracts) uniformly bound and numbered; the whole relate to the times of Charles I., and nearly one hundred of them are in MS. all or most of them on that king's behalf, which no man could venture then to publish, without endangering his ruin. This collection was formed at an immense expense, and after various revolutions was purchased by his Majesty George III., and by him presented to the British Museum¹.

iii. THE HISTORY OF PARTICULAR TOWNS.

The history of a particular town is interesting to few, besides its inhabitants, and consequently finds but few admirers among strangers: it is in general very rare everywhere else.

The topographies of particular counties and places in our own country abundantly verify this remark: the prices they have brought at various modern sales are exorbitant in the extreme.

¹ Beloe's Anecdotes, vol. ii. pp. 348—356, in which an interesting account is given of the formation and journeyings of this matchless collection of historical and political tracts.

iv. THE HISTORIES OF ACADEMIES AND LITERARY SOCIETIES.

The histories of such societies do not suit every taste, the subject being of too limited a nature.—A good account of the principal academies and literary societies, as well as of their transactions, is a desideratum in the annals of literature.

v. THE LIVES OF LEARNED MEN.

Biographies of literary men are either fugitive pamphlets which are soon lost, or bulky volumes which meet with only a few purchasers. Their sale is necessarily slow; they gradually disappear, and in the course of a few years are with difficulty to be found. This circumstance obviously gives them a high claim to a place in every public Library.

vi. CATALOGUES OF PUBLIC AND PRIVATE LIBRARIES.

The catalogues of *private* libraries fall into the hands of so many persons, who have no taste for them, as to render it almost impossible for them to be preserved entire: we must however except the priced catalogues of celebrated libraries, which are always of a certain value in the estimation of amateurs and bibliographers. Folio catalogues of *public* libraries find a place in all great libraries; but having only a few admirers among private individuals, they gradually become rare: to this we may add that small impressions only are printed, which are seldom, and sometimes never exposed to sale¹.

¹ A list of the principal catalogues of public and private Libraries, together with some account of the Libraries themselves, occurs *infra*, Part III: Chap. V. Sect. II. III. IV. V. and VI.

vii. WORKS STRICTLY CRITICAL.

As the number of critics is very small, it happens that books, written exclusively for them, are widely dispersed, and at length most of them become very rare.

viii. BOOKS OF ANTIQUITIES.

Works, which treat on antiquities, are usually enriched with engravings of vases, statues, medals, &c. &c. which (especially when they are proofs) considerably enhance their price. After the plates have been used, they are retouched, and then become of very little value, so that such works are with great difficulty reprinted. To which we must add, that the number of engravings and books, generally struck off, depends on the taste and number of the purchasers; and consequently they become more or less rare. The antiquarian works of Montfaucon, Piranesi, Overbeke, Sir William Hamilton, Wood and Dawkins, Stuart, &c. &c. abundantly verify the correctness of this remark.

ix. BOOKS THAT TREAT ON CURIOUS ARTS.

Books on music, painting, sculpture, alchymy, &c. are interesting only to a few curious persons: they are dispersed among families where these arts are cultivated; and at length disappear from commerce; so that when oncé scattered, they are only to be obtained with the greatest difficulty. The fourth volume of the *Bibliothèque des Philosophes Alchymiques ou Hermetiques*, in 12mo. is so scarce that it costs 60 livres¹. The cause

¹ In France. In a note to the *Essai de Bibliographie* (Dict. Bibliog. Hist. et Crit. tom. 3. p. 498.) a new edition of the *Bibliothèque des Philosophes*

of its rarity is, that of the three first volumes one thousand copies were struck off, but of the fourth only five hundred were printed.

X. BOOKS WRITTEN IN LANGUAGES LITTLE UNDERSTOOD,—THOSE IN THE MACARONIC STYLE, OR THE LANGUAGE OF WHICH IS PURPOSELY CORRUPTED.

The works of the Rabbins, Caraites, Arabs, Persians and Greeks, which remain untranslated, being intelligible only to a few learned men, are of great rarity.

The term *Macaronic* is given to a sort of burlesque poetry, with words of different languages intermixed, and common words latinized and travestied: as in the following verses.

*Archeros pistoliferos furiamque manantum,
Et grandem esmeutam quæ inopinam facta ruelle est,
Toximumque alto troublantem corda clochero.*

Merlin Cocaye or Theophilus Folengio, and Antonius de Arena Passevantius, or rather Theodore Beza, have left us some Macaronic works, the best editions of which are in great request. Some specimens of this kind of wit have also been produced in our own island¹.

§ 2. *Books condemned.*

Many centuries before the invention of printing, books were forbidden by different govern-

Alchymiques ou Hermetiques, is announced in twenty volumes: it was to be published by subscription, with plates. The successive revolutions, which soon after took place in France, in all probability prevented its publication.

¹ See the Appendix, No. VI.

ments, and even condemned to the flames: professor Beckmann¹ has adduced a variety of proofs that this was the case, among both the antient Greeks and Romans, from which the following instances are selected.

At Athens the works of Protagoras were prohibited; and all the copies of them, which could be collected, were burnt by the public crier. At Rome, the writings of Numa, which had been found in his grave, were by order of the senate condemned to the fire, because they were contrary to the religion which he had introduced. As the populace at Rome were, in times of public calamity, more addicted to superstition than the government approved, an order was issued, that all superstitious and astrological books should be delivered into the hands of the prætor. This order was often repeated: and the emperor Augustus caused more than twenty thousand of these books to be burnt at one time. Under the same emperor, the satirical works of Labienus were condemned to the fire, which was the first instance of this nature; and it is related as a singular circumstance that, a few years after, the writings of the person, who had been the cause of the order for that purpose, shared the same fate. The burn-

¹ In an interesting article on *Book-Censors*, in his "History of Inventions and Discoveries," 8vo. vol. iii. pp. 99—104.

ing of these works having induced Cassius Severus to say in a sneering manner, that it would be necessary to burn him alive, as he had learned by heart the writings of his friend Labienus, a law was in consequence passed against abusive writings. When Cremutius Cordus, in his history, called C. Cassius the last of the Romans, the senate, in order to flatter Tiberius, caused the book to be burnt; but a number of copies were saved by being concealed.

Antiochus Epiphanes caused the books of the Jews to be burnt; and in the first centuries of our era, the books of the Christians were treated with equal severity, of which Arnobius bitterly complains. We are informed by Eusebius, that Dioclesian caused the sacred scriptures to be burnt. After the spreading of the Christian religion, the clergy exercised against books, which were unfavourable or disagreeable to them, the same severity which they had censured in the heathens, as being foolish and prejudicial to their own cause: thus, the writings of Arius were condemned to the flames at the council of Nice, and Constantine threatened those who should conceal them with the punishment of death. The clergy assembled at the council of Ephesus requested Theodosius II. to cause the works of Nestorius to be burnt; with which request that emperor complied. The writings of

Eutyches shared the same fate at the council of Chalcedon; and it would not be difficult (professor Beckmann remarks) to collect instances of the same kind from each of the subsequent reigns. More recent times have afforded similar instances, in consequence of the institution of censors of books, whose office was to examine and give their judgment of all books before they went to the press; and to see that they contain nothing repugnant to the faith and to good morals. Books, circulated contrary to this regulation, were liable (and in some parts of Europe it is still in force) to be seized and castrated, suppressed or burnt, according to the nature of the work ¹.

Long before the invention of printing, authors submitted their works, previously to publication, to the judgment of their superiors: this was

¹ In England, we formerly had an officer of this kind under the title of *Licensor of the Press*; but since the revolution of 1688 the press has been open. At Paris the faculty of Theology claimed the privilege of censors, as granted to them by the Pope; but in 1624 a commission of four doctors was created by letters patent, who were constituted the sole public and royal censors and examiners of books and answerable for every thing therein. In most Catholic countries, the public faith and morals are still carefully guarded by *Expurgatory Indices*, or catalogues of prohibited books; among which however there is this difference, that some are condemned purely and absolutely, and others only *donec corrigantur*, until they be corrected..

principally done by the clergy, partly to secure themselves from censure or punishment, and partly to manifest their respect for the pope or bishops. This, however, does not appear to have been on their part a duty, but a voluntary act. In 768, Ambrosius Autpert, a Benedictine monk, sent his Exposition on the book of Revelation to pope Stephen III. with a request that he would publish the work and make it known. On this occasion he says expressly, that he is the first writer who requested such a favour; that liberty to write belongs to every one who does not wish to depart from the doctrine of the fathers of the Church; and he hopes that this freedom will not be lessened, on account of his voluntary submission.

Soon after the discovery of the typographic art, laws began to be made for subjecting books to examination :—a regulation proposed even by Plato, and which has been wished for by many since. It is indeed very probable, that the establishment of book-censors was not a little accelerated by the apprehensions of the Clergy, lest publications should be circulated prejudicial to religion, and consequently to their power. The earliest instance of a book, printed with a permission from the government, is generally supposed to occur in the year 1480; but professor Beckmann mentions two books, which

were printed almost a year sooner than 1479, with the approbation of the public censor. The oldest mandate for a book-censor, with which he has met, is that issued by Berthold, Archbishop of Metz, in the year 1486. In 1501, pope Alexander VI. published a bull, containing several prohibitions and regulations with regard to the printing of books; and which decrees all catalogues and books before that period to be examined, and that such as contained any thing prejudicial to the catholic religion should be burned. In the council of Lateran, held at Rome in 1515, it was ordered that no books should in future be printed, but such as had been inspected by ecclesiastical censors.

The oldest instance of an exclusive privilege, granted for printing books, is that conferred by Henry Bishop of Bamberg, in 1490, for the printing of "*Liber Missalis secundum ordinem ecclesiæ Bambergensis.*"

Books, condemned or censured, may be divided into four principal classes: i. Books adverse to religion;—ii. Books adverse to morality;—iii. Seditious books;—and iv. Books which treat on superstitious arts.

i. BOOKS ADVERSE TO RELIGION.

Books hostile to religion may be subdivided into four branches.

1. Atheistical, and
2. Deistical works.

3. Books treating on religions adverse to Christianity. These three classes are not very numerous.

4. Heterodoxical, Schismatical and Paradoxical works.—These are pretty numerous: and being generally prohibited or suppressed, they are sought after with avidity, and their price is consequently enhanced. There always are eccentric persons, who, deviating from the beaten track, devour works of this sort with such eagerness that an edition is soon dispersed and in a manner exhausted:—which is the infallible cause of the rarity of such works.

ii. BOOKS ADVERSE TO MORALITY.

Of this class there are three sorts.

1. Books, which, while they do not present glaring obscenities, contain extravagant and dangerous opinions: their subjects are the virtues, vices, manners, education, and the customs of life. Such are the *Emilius* of Rousseau—the *Manners* of Toussaint; the *Works* of Helvetius; &c. &c.

2. Obscene books, whether in prose, verse, or graphic.—These detestable productions are generally seized by the police, when they can be discovered, and their venders punished by public justice: they are generally sold in private, are rarely to be found even in the libraries of the curious, and are so widely dispersed that it becomes exceedingly difficult to meet with a copy.

3. Libels and satirical pieces injurious to civil society, being in general replete with malignity, always find purchasers enough, among those who delight in confusion, to obtain a quick sale: as however they are suppressed on their first appearance, they soon become scarce.

iii. SEDITIOUS BOOKS.

These strike either at the roots of civil government itself, or are levelled against some particular government, or are directed against the members of the administration in a state. They are not very numerous, being suppressed like the books last mentioned in the preceding class by the strong arm of the law. Consequently, they soon cease to circulate, and are not to be purchased without great difficulty.

iv. WORKS WHICH TREAT ON SUPERSTITIOUS ARTS.

Books on geomancy, chiromancy, physiognomy, and metoposcopy, magic, the Cabala, &c. composed only for a few superstitious persons or for knaves. By the truly learned they are despised; but those who delight in them, sometimes purchase them very dearly, and preserve them with the utmost care. Hence, they do not often appear in public sales, and thus become exceedingly scarce.

A notice of the writers, who have treated on condemned books, will be found *infra* Part III. Chap. IV. Sect. III.

§ 3. *Of Editions relatively scarce.*

A book may be very common, of which there are very scarce editions: they may be reduced to the seven following classes.

i. EDITIONS, PUBLISHED FROM ANTIENT MANUSCRIPTS.

The first edition of a work, formed after antiient MSS. is termed the *Editio Princeps*: although these antiient editions are frequently defective, they are ne-

vertheless in universal request ; because they in some degree represent the manuscripts from which they have been taken. As such editions are antient, and only a few copies of them are preserved, they consequently become very scarce.

These first editions are generally, with respect to foreign works, printed in the fifteenth or early part of the sixteenth century ; but we have also a pretty rich sprinkling of a similar description of first editions executed in our own country. The *first edition* of Shakespeare, in particular, may be mentioned, a copy of which (with the *title-page* reprinted,) sold at Col. Stanley's sale (No. 426.) for £37. 16s. A fac-simile reprint of this edition was published a few years since¹.

ii. THE FIRST EDITION OF EACH TOWN.

As there are few towns, in which the art of printing has not long been established, the *editiones principes* of such places are very seldom to be met with : they are sought out with the greatest avidity, because they are of considerable use in illustrating different points of literary antiquity.

The titles of the works, first executed after the introduction of printing into the different cities of Europe, are briefly stated, *supra* Part I. Chapter III. Sections I. II. and III. pp. 163, *et seq.*

iii. EDITIONS BY CELEBRATED PRINTERS OF THE XVIth, XVIIth AND XVIIIth CENTURIES.

The beauty of the type, the typographical execution,

¹ Dibdin's Bibliomania, p. 701. Mr. D. has enlivened his very amusing work by some curious anecdotes relative to this first Shakespeare and other dramatic works. See particularly pp. 576—578.

and the correctness of the works, cause such editions to be sought with great avidity;—particularly those printed by the Aldi, Juntas, Torrentins, Giolito, Gryphii, Rouillés, the Stephenses, Vascosan, Turnebus, Dolet, Jannon, the Elzevirs, the Plantins, Blaeu, Coutelier, Barbou, Brindley, Baskerville, Foulis, Didot, Bodoni, Ibarra, Crapelet, the Bipontine editions, &c. These may readily be found in great libraries, which are so many receptacles, where these chefs-d'œuvres of the typographic art are carefully preserved.—See the Appendix, No. VII. for a concise account of some of the most eminent of these printers, with lists of the principal classics, or other works executed by them.

IV. EDITIONS PRINTED WITH PECULIAR AND EXTRAORDINARY LETTERS AND CHARACTERS.

In this class are comprised Greek editions printed in capital letters, (*literis majusculis*) as the Anthologia, Callimachus, Apollonius Rhodius, Euripides, &c. The Sedan classics, (as they are called) which are remarkable for the smallness of their size and the beauty of their type. The two editions of the Adventures of the Chevalier Tewrdanck or Dheurdonck, printed in Germany in 1516 and 1517, in folio; the characters of which, being ornamented with flourishes, lead one to believe that they were cut in relievo upon blocks. These and similar works are of extreme rarity, very curious, and exceedingly difficult to be found. A short notice of this work occurs in the Appendix, No. I.

* ANTHOLOGIA Epigrammatum Græcorum, ex recensione Johannis Lascaris. (edit. princ.) Florentiæ per Laurent. Francisci de Alopa. mccccxciv.

This is a book of great rarity: a copy of it in good preservation (formerly Bishop Horsley's copy) is marked by Mr.

Lunn at £15. 15s. another copy, in very fine condition, sold at Dr. Heath's sale, (No. 3344.) for £23. 10s.

ANACREONTIS Odæ, præfixo commentario, additis variis lectionibus. 4to. Parmæ, 1785.

This is one of the finest specimens of Bodoni's typographical skill; a more elegant and exquisitely furnished production (Mr. Dibdin remarks) cannot be conceived.

APOLLONII Rhodii Argonautica, Gr. cum scholiis. 4to. Florence, MCCCCLXXXVI.

A fine copy of this rare book sold at Dr. Heath's sale (No. 3480.) for £10.

CALLIMACHI Hymni Gr. cum scholiis græcis, cura Johannis Lascaris. 4to. No date, but supposed, from similarity of its types to those of the *Anthologia*, to have been executed by the same printer, and at Florence, about the year 1494.

EURIPIDIS Tragœdiæ, (containing the *Medea*, *Hippolytus*, *Alcestis* and *Andromache*) Gr. cura Jo. Lascaris. The preceding remark applies to this work.

To this class may be referred, the early productions of the British press, printed in black letter, and which have brought such large sums at recent sales¹. Books, the text of which is engraved, also belong to this class: from the splendour of their execution, and their consequent high prices, these works are only to be found in the libraries of the most opulent. Peignot has written a special Bibliography on books of this description, to which the student is referred: the following instances, however, may be given in illustration.

ANACREONTIS Symposiaca semi-ambia, græcè, tabulis æneis incisa, et iconibus ornata, edente Josepho Spaletti. Rome, 1781. This splendid volume is dedicated to Don Gabriel the then infant of Spain: it consists of only 17 pages ex-

¹ Particularly at the sales of the Roxburghe and Alborne Collections; of which a short notice will be found, *infra*, Part III. Chap. V. Sect. IV.

hibiting the text of the Vatican MS. (now deposited in the Imperial Library at Paris.) On the critical merits of this edition, see Dibdin's *Intr. to Classics*, I. 151.

Quinti HORATII Flacci Opera, Londini, æneis tabulis incidit Johannes Pine, 1733—1737. 2 vols. 8vo. The text of this elegantly engraved edition, (which is in great request) is taken from the 8vo Cambridge edition of 1701. Proof impressions are greatly valued, from some of the plates having been injured after a few copies had been struck off. In vol. II. of the genuine edition, p. 108, the medal of Cæsar exhibits the words *Post. est*; which in the copies subsequently taken off are corrected. A copy of this work, at La Valiere's sale, was sold for 107 livres, 1 sou.

Publii VIRGILII Maronis Bucolica et Georgica, tabulis æneis olim a Joh. Pine illustrata, opus paternum in lucem profert Robertus Edge Pine. Londini, 8vo. 2 vols. 1774. This is executed in the same style of elegance as the preceding. The *Æneid* never appeared.

V. EDITIONS PUBLISHED IN FOREIGN COUNTRIES.

It is natural that such editions should be of as rare occurrence among us, as our editions are in foreign countries: of this description are the works executed in Italy, Spain, Portugal, Sweden, Denmark, and particularly in Bohemia, Poland, Hungary, Transylvania, Turkey, &c. The existing political relations of the governments of the respective countries also affect the prices of foreign books; which are always dearer in time of war than during peace, on account of the increased difficulty of intercourse, and consequent hazard in procuring importations of foreign works.

VI. EDITIONS NEVER EXPOSED TO SALE.

Such are the works which are issued from royal presses, and from those of private individuals. For instance,

the writings of cardinal Quirini will never be much known ; because they were printed at his own expense, have never been exposed to sale, and were distributed by himself as presents.

The duodecimo edition, in 1718, of the *Amours pastorales de Daphnis et Chloe*, with engravings after the designs of Philip Duke of Orleans, Regent of France, is likewise exceedingly scarce ; it was never exposed to sale, though this book is common enough in various other editions and sizes ¹. In our own country, the productions of the Strawberry Hill press, belonging to the late Lord Orford, have always been rare, and produce enormous prices.—Lists of them may be seen in Lemoine's *Typographical Antiquities*, pp. 91—94, and in Mr. Dibdin's *Bibliomania*, pp. 716—725.

vii. EDITIONS WHICH HAVE BEEN SOLD UNDER
DIFFERENT TITLES.

When booksellers or authors wish to disguise a work, which they cannot sell publicly, or the sale of which they wish to promote, they have recourse to the stratagem of giving it a new title ; and thus obtain a sale for a work which perhaps is unworthy of circulation. The *Matanasiana* is an instance of this manœuvre. It was originally published at the Hague in 1716, under the title of *Mémoires littéraires, historiques, et critiques*: as the work did not sell, the title of “*Matanasiana ou Mémoires littéraires, historiques, et critiques, du Docteur Matanasius, S. D. L. R. G.* ;” (by Themiseul de Saint Hyacinthe,) La Haye 1740, 2 vols. 12mo.—was given to it twenty-four years afterwards. This work contains a

¹ The edition was limited to 250. A copy in Messrs. Lackington's catalogue for 1812, (No. 10211.) is marked at £4. 14s. 6d.

few good passages; but something better was to be expected from the ingenious author of *Chef d'œuvre d'un inconnu*. (Peignot, *Bib. Spec.* 236.)

SECTION IV.

Prices of Books.

THE various circumstances which render books scarce, also contribute to enhance their prices, particularly when a work possesses any degree of interest.

Before the invention of printing, manuscripts were the only current books, and in general bore such excessive prices, that few beside the most opulent could acquire a library. Some few data remain, which serve to shew us the esteem entertained by the most able connoisseurs of antiquity, from the large sums which they paid for the best books. Thus, it is recorded of Plato, that, notwithstanding he had a very small paternal inheritance, he bought three books of Philolaus the Pythagorean, at the price of ten thousand denarii (about £300 sterling). It is also said that Aristotle bought a few books belonging to Speusippus the philosopher, after his decease, for three attic talents (about £581. 5s.¹).

In after times St. Jerome almost ruined him-

¹ Aulus Gellius, *Noct. Att.* l. 1. c. 17. See also p. xiii. *note, supra.*

self, in order to purchase the works of Origen ; and during the dark or middle ages the prices of books became so high, that persons of a moderate fortune could not afford to purchase them. Towards the close of the seventh century, Benedict Biscop, founder of the monastery of Weremouth in Northumberland, made no fewer than five journies to Rome, to purchase books, vessels, vestments, and other ornaments for his monastery. Thus he collected a very valuable library ; for one book out of which (a volume on Cosmography) king Alfred gave him an estate of eight hides, or as much land as eight ploughs could labour. The bargain was concluded by Benedict with the king, a little before his death, A. D. 690 : and the book was delivered, and the estate received by his successor, Abbot Ceolfred. At this rate, (observes Dr. Henry) none but kings, bishops, and abbots, could be possessed of any books ; which is the reason, that there were then no schools but in kings' palaces, bishops' sees, or monasteries¹.

Even monasteries of some consideration frequently had only a missal. Muratori relates that Lupus, abbot of Ferrieres, earnestly besought the pope, in a letter written in 825 to lend him a copy of Cicero's treatise *de Oratore*, and *Quinctilian's Institutes*: for, said he, though we have

¹ Henry's Hist. of Britain, vol. iv. p. 21.

some fragments of them, a complete copy is not to be found throughout France. The same author also states, that, when any one presented a book to a church or a monastery, (the only places which had a library during those ages of ignorance,) the donor himself came and offered it at the altar, amid the pomp of religious ceremonies.

In the year 1174, Walter, prior of St. Swithin's, Winchester, purchased of the monks of Dorchester, in Oxfordshire, the Homilies of Bede and St. Augustine's Psalter, for twelve measures of barley, and a pall, on which was embroidered in silver the history of St. Birinus converting a Saxon king. Among the royal MSS. in the British Museum, is Comestor's Scholastic History in French, which, (it is recorded in a blank page at the beginning) was taken from the king of France at the battle of Poitiers; and, being purchased by William Montague, Earl of Salisbury, for one hundred marks, (marks?) was ordered to be sold by the last will of his countess Elizabeth for forty livres. About the year 1400, a copy of Jean de Mehun's celebrated "Roman de la Rose," was sold before the palace gate of Paris for forty crowns, or £33. 6s. 6d. The countess of Anjou paid for a copy of the Homilies of Haimon, bishop of Halberstadt, 200 sheep, five quarters of wheat, and the same

quantity of rye and millet. Even so late as the year 1471, when Louis XI. of France borrowed the works of Rhasis an Arabian physician, from the faculty of medicine at Paris, he not only deposited a considerable quantity of plate, by way of pledge; but he was also obliged to procure a nobleman to join with him as surety in a deed, binding himself under a great forfeiture to restore it¹.

To descend to the period when typography first began to be practised;—we find it recorded that Antonio Bologna of Palermo, surnamed Beccatellus, was obliged to sell an estate, in order to buy a copy of Livy, which had been written by Poggio Bracciolini; who employed his purchase-money in buying another estate, in the vicinity of Florence, about the year 1455. The Cardinal of Pavia (Piccolomini) was, since that time, obliged to pay forty golden crowns for a Plutarch, and twenty-five for the Epistles of Seneca².

In more recent times the prices of books have become so arbitrary, from the competition of

¹ Robertson's History of Charles V., vol. i. p. 274. Warton's History of English Poetry, vol. i. Diss. ii. Some curious Anecdotes on this subject are also to be found in Gabriel Naudé's Additions to Philip de Comines' History of Louis XI. tom. iv. p. 281, *et seq.* (edit. Dufresnoy.)

² Naudé's Additions to Philip de Comines, tom. iv. p. 282.

purchasers, that no criterion can possibly be laid down, by which to assist the young bibliographer in making purchases. To give instances of all the exorbitant prices which have been given at the principal sales within the last five years, would require a larger space than the limits of this volume will admit. A few are specified in a subsequent part¹: and for the rest it may, perhaps, suffice to refer generally to Mr. Dibdin's sprightly bibliographical Romance, so often cited; and which contains abundant instances of the high prices that have been given for valuable books¹.

SECTION V.

On the Choice of Books for a Library.

IN order to form and to arrange a well-selected library, it is of the first importance to be acquainted with the best books in every department of literature: on this subject, men eminent for their learning have left us different works, the principal of which are noticed in the third part of this volume.

¹ *Vide infra*, Part III. chap. v. sect. iv. and v. Some incidental notices of eminent book-auctions are also to be found in the Classical Journal, and Gentleman's Magazine. Mr. Beloe's "Anecdotes of Literature" contain numerous interesting notices relative to the prices of books.

The title of a work ought to be its abridgement, and so fully to express its subject-matter, that the contents and title should be in perfect unison. Title-pages, however, are too frequently fallacious, being framed to sell the books rather than to convey instruction; hence various rules have been given, by which to form a correct estimate both of books and of editions.—A few of the most important are annexed, for the guidance of the juvenile student.

§ 1. OF BOOKS.—It may be observed in general, that the choice of subject, the mode of treating it, and the language employed by the author, are so many criteria of the goodness of a book: the two former evince the writer's judgment and erudition, the latter shews his ability and practice in writing. Where it is possible, the best method of obtaining a correct idea of the relative goodness or badness of a work, is to peruse it, first taking a general view of its argument and scope, and afterwards carefully examining its several parts¹.

But, more particularly, it is an indication that a book is good:

1. If the author be known to possess the requisite talents and information; or should have

¹ Legipontii *Dissertationes Philologico-Bibliologicæ*, p. 28. Heumanni *Conspectus Reipublicæ Literariæ*, p. 260. Baillet, *Jugement des Savans*, tom. i. p. 259.

already published any esteemed work on the subject. Thus, we may conclude that Julius Cæsar will teach us the art of war better than Peter Ramus; Cato, Palladius, and Columella, agriculture better than Aristotle; and Cicero oratory better than Varro. But it is not sufficient that the author be skilled in the faculty; he ought also to be versed in those particular branches of it concerning which he treats:— some, for instance, excel in civil law, but not in public law; Salmasius proved himself an excellent critic in his *Exercitationes Plinianeæ*, but was greatly inferior to Milton in his *Defensio Regia*.

2. If the book be on a subject that requires great reading, it may be presumed good, if the author had a copious library, or could have access to one; or if he lived in a place where books were not wanting; though in this case there is danger lest he indulge in too many quotations, especially, says Struvius, if the author be a lawyer.
3. A book, the composition of which occupied a long time, cannot often fail of being good.
4. Books on points of doctrine by eclectic writers are to be presumed better than such as are written by the adherents to particular sects.
5. The age of an author may also afford some

indication : books requiring *labour* are usually better executed by persons of a middle age than by those who are further advanced in years.

6. Another indication may be taken from the author's state and condition :—thus a history may reasonably be supposed to be good, if the historian were either an eyewitness of the facts which he relates,—or were concerned in public affairs, or had access to public records or other monuments, whence intelligence may be derived ;—and, lastly, who is not biassed by party, or by any other indirect or sinister motive. Cicero and Sallust, therefore, were fully competent to write the history of Catiline's conspiracy :—D'Avila, Philip de Comines, Guicciardini, Clarendon, Colonel Hutchinson, May, &c. were present in the civil wars which they respectively describe. Xenophon, having an employment in the Spartan state, has treated, with singular ability, of that commonwealth; and Amelot de la Houssaye, by living a great number of years at Venice, was enabled to explain the secret policy of the Venetian government. Camden wrote annals of the affairs of his own time ; the President De Thou held a correspondence with the best writers in every country; and Puffendorff had access to public

archives.—In literary matters, also, we give credit to those who have the direction of public libraries.

7. The time or age in which the author lived, may afford some light in judging of his work ; as every age has, according to Barclay, its peculiar excellency¹.

§ 2. ON THE CHOICE OF EDITIONS.—With regard to editions of works, it will be necessary,

1. To be well acquainted with the titles of the books.

2. Not to mistake allegorical for natural titles.

M. Ameilhon has recorded some curious blunders, which have been caused by not attending to this rule. In a catalogue which he saw, a treatise *De missis dominicis* was placed among the liturgical books; the compiler having, from its title, supposed it to treat of the mass, whereas the work related to those magistrates whom the kings of France, of the first and second race, sent into the provinces to dispense justice, and to receive complaints from persons aggrieved by the agents of government; which magistrates were formerly called *Missi Domini*. M. Ameilhon adds, on the information of a person who had actually seen it, that in the library of a quack, who had suddenly become

¹ Rees's Cyclopædia, vol. ii. art. *Book*, and the authorities there cited.

a doctor and a bibliomaniac, Maclaurin's *Treatise on Fluxions* was classed with books on pathology; the pretended connoisseur having taken mathematical fluxions for a disease! In a library which had formerly belonged to a religious order, an ignorant monk had placed a treatise, intituled, *Aurifodinæ*, by the side of Agricola, among books on metallurgy; these supposed gold-mines being nothing else but a common-place book, containing devotional extracts.

In a great library, M. Ameilhon saw a treatise on cutting for the stone, intituled, *Historiæ lateralis ad extrahendum calculum sectionis Appendix*, placed by the side of a treatise on *Conic Sections*. In the same collection, a large folio volume, with the title, *Fuggerorum et Fuggerarum Imagines*, was classed among botanical works;—a genealogy of the family of Fugger (the celebrated merchants of Augsburg) having been mistaken for a treatise on male and female *Ferns*. Another work, entitled, *Jours Caniculaires* (Dog-Days) was placed among books on astronomy; and these same Dog-Days were only a collection of rhapsodies on almost every subject¹.

¹ Ameilhon, *Projet sur quelques changemens a faire aux Catalogues des Bibliothèques*. Mem. de l'Institut, tom. ii. p. 477, et seq.

Instances of similar ridiculous mistakes might easily be multiplied ; but those already adduced will be sufficient to shew the necessity of attending to the contents of a book, and not trusting merely to a cursory inspection of its title.

3. Where a book has *two* titles, it must not be mistaken for two different works.
4. Do not confound together two authors who have the same name, as Caius Plinius Secundus, the naturalist, with Caius Plinius Cæcilius Secundus, usually called the Younger Pliny ; or Xenophon the historian with Xenophon the Ephesian, who wrote an amatory romance.
5. Clearly to understand the titles which are marked by abbreviations : these occur chiefly in early printed books.
6. To know of how many parts or volumes a work consists.
7. To be acquainted with all the editions of a book, and to know which of them is the best, —as well as the place, year and form of each edition,—its several editors,—whether any particular edition is enriched with notes or comments, with a summary or table of contents, index, preface, &c.—Whether all these are good, indifferent or bad—Who is the author of the notes,—or whether the book has been published *cum notis variorum* or *diversorum*.

8. Whether a book is divided into chapters or paragraphs.
9. In what manner an edition is executed, whether correctly printed or not, and on good paper or letter: and whether it is ornamented with plates of any kind, and in what manner these have been executed.
10. Whether a work has been criticised;—if it has, whether the critics have attacked the matter, the style, or the author personally;—and whether they have been competent to their office, and impartial or not in the discharge of it.
11. Whether an edition be a *true* or *genuine* one, or not. “In printing a work, it sometimes happens that a few copies are struck off with deviations from those usually received;” and although these deviations have in general nothing to recommend them, yet books of this description are in great request among some book-collectors. One or two instances will illustrate this remark.

The genuine Elzevir *Cæsar* (Lug. Bat. 12mo, 1635) is distinguished from the spurious one of the same date, by having a buffalo's head at the beginning of the preface and body of the work; and also by having page 149 numbered 153². The genuine Elzevir *Virgil* (Lug.

¹ Dibdin's *Bibliomania*, p. 704, and note.

² Brunet, *Manuel de Libraire*, tom. i. p. 198. Dibdin's *Introduction to the Classics*, vol. i. p. 221.

Bat. 12mo, 1636) is known from the counterfeit edition of the same year, by having two passages printed in *red ink*, which in the latter are in *black*. The first passage is *Ego vero frequenter a te litteras accipio*, and occurs in page 1, before the *Bucolics*; the second, *Si mihi susceptum fuerit decurrere munus*, is found in page 91¹. In the genuine edition both these passages are printed in RED capital letters, but in the spurious one they are black. The beautiful 24mo edition of the English Bible, printed by Field in 1653, was counterfeited in Holland in 1658: the genuine one is known by having the four first psalms on one page, without turning over.

12. Lastly, in every instance where it is practicable, the best editions of every work should be purchased: and, among such as are reputed to be the best, those are to be preferred, the text of which is most correct and neatly printed, on the best paper and with the fullest margins. Of this description are the works of the more eminent printers of the sixteenth, seventeenth, and eighteenth centuries, a list of whose productions will be found in a subsequent part of this work².

¹ Debure, *Bibl. Inst. (Belles Lettres)* p. 300.

² Vide Appendix, No. VII.

CHAPTER III.

Essay towards an improved System of Classification for a Library.

THE best ornament of a library is an orderly and symmetrical disposition of the books: a collection destitute of order has, not inelegantly, been compared to a deformed human body highly dressed up; whose external ornaments only render its deformity the more conspicuous¹.

Previously to the collecting of books for a library, some attention should be given towards selecting a commodious place for their reception; a few hints on this topic will not be irrelevant to our subject.

The apartment, appropriated to the reception of books, should neither be exposed to moisture, nor to the burning rays of the sun: it ought to be sufficiently light, well ceiled, and well floored. The shelves, whether defended by glass doors, in presses, or open their whole length, should be a foot distant from the wall; or, if they reach to the wall, guards should be placed upon them, to prevent the books coming in contact with it; and the lowest shelf, or

¹ Legipont. Diss. de Ornand. Bibl. p. 44.

that which supports folio books, ought to be about one foot above the floor.

Between each shelf a space should be left, proportioned to the size of the volumes: and the height of the different shelves should be adjusted to the form or size of the books. Thus, the first or lowermost shelf will be appropriated to folio books on large paper; the second, to those on common paper; the third, to royal quartos; the fourth, to medium quartos, &c. &c. A sufficient interval should be left between each volume and the shelf above it, to admit of its removal without difficulty, regard being also had not to place the books too closely together, so that the air may freely circulate around them.

A library thus disposed cannot fail to present an agreeable appearance; while the books deposited in it, will be preserved perfectly sound, and will be sheltered from every kind of accident: further, the dust should be frequently removed, and the volumes be gently beaten together, from time to time, in order to shake out the dust that would otherwise accumulate, and ultimately injure them.

The different branches of human knowledge form a chain, all the links of which are mutually connected together: every part of this great

chain ought to harmonize with that which precedes it, and with that which follows it. In a system of bibliography, or of classification for a library, it has been observed, that the grand objects of attention are to divide and sub-divide into different classes all those works, which contain the objects of our knowledge: each primary class is to be considered as a trunk or stem, bearing branches, boughs, and leaves. The difficulty to be surmounted, in establishing the proper and requisite order among these different parts, is

1. To fix the rank which the primary classes ought to hold among themselves; and
2. To refer to each of them the prodigious number of branches, boughs and leaves which belong to it.

One advantage to be derived from these divisions and sub-divisions, is that of finding with ease the books we search for in an extensive library, or in a catalogue; and of knowing readily the best book on the subject which we are studying, or concerning which information is required¹.

In these general principles all Bibliographers are agreed, though almost every one has varied in the different modes in which he has applied

¹ Essai de Bibliographie, in Cailleau's Dict. Bibliographique, tom. iii. p. 505.

them. What pretensions to excellence above the various bibliographical systems now extant, the following essay may possess, the candid Bibliographer alone can appreciate.

Engaged some years since in an arduous undertaking, the classification of the Harleian MSS. for the catalogue of that library¹; the author of the present system was led attentively to study the connexions and dependencies of the great chain of human knowledge: at the period referred to he was unacquainted with any bibliographical systems, except that of M. De Bure, and the very minute method pursued in the *Bibliotheca Bunaviana*, for a catalogue of Count Bunau's library. In the prosecution of his design, he traced the outlines of the present plan, which he afterwards simplified: and though it differs from most modern systems, he ventures to hope it will be found to combine the two important requisites of conveniency of reference and simplicity of arrangement.

The following is an outline of the plan, which the author has adopted, together with the reasons which have induced him to prefer it to the

¹ This classed catalogue of MSS. (with the indexes of names of persons and places) forms the fourth volume of the "Catalogue of the Harleian Manuscripts in the British Museum," fol. 1812. Some alterations have been introduced in this arrangement, which further consideration suggested to the author.

different schemes for arranging libraries, that have hitherto been communicated to the public. It commences with Bibliography: to this succeed the four primary faculties or classes of Theology, Philosophy, History, and Literature.

Bibliography can only be regarded as an introduction to the knowledge of books; and without such knowledge it is obvious, that no well-selected library can be formed: Bibliography, therefore, claims to itself the first place, as an introduction to a system of classification for an extensive collection of books¹.

INTRODUCTION—BIBLIOGRAPHY.

The works which treat of Universal Bibliography may be comprised under four principal divisions:—1. Literary History; 2. Bibliology or Elementary Bibliography; 3. General Bibliography; and 4. Professional or Special Bibliography.

§ 1. LITERARY HISTORY first demands the attention of the bibliographical student: previously to acquiring the knowledge of books, it is

¹ It may be proper to add, that according to the author's original system, Bibliography entered into the class of Literature; but for the reasons, so ably assigned by M. Peignot, he has detached it from that faculty, and placed it first, by way of Introduction. See Peignot's *Repertoire Bibliothèque Universelle*, pp. viii—xiv.

desirable to have an idea of the history of the subjects they discuss, and of the authors who have composed them. It is the only means by which we can perfectly apprehend the spirit of each writer, derive real advantage from his labours, and properly appreciate books. Works on Literary History include

- (1) General Histories of Literature, Biographical and Historical Dictionaries, &c.
- (2) Literary History in particular;—*i. e.* Histories of literature in particular countries.
- (3) Histories and Transactions of academies and literary societies.

Some Bibliographers have instituted more numerous divisions of literary history; but the above comprehend every thing which is really necessary to be known on this interesting subject: and to the two first of these three heads, we have referred our notice of the various books on literary history, which occur in Part III. Chap. I. *infra*.

§ 2. BIBLIOLOGY, or Elementary Bibliography, considers books, with regard to the material of which they are composed, and also with respect to their authors, the age when these wrote and flourished, their characters and qualifications, and the choice of editions, their forms, &c. &c. The general principles of elementary bibliography are stated in the preceding pages;

and the principal works which treat on this subject are enumerated in Part III. Chap. II. III. and IV. *infra*.

§ 3. GENERAL BIBLIOGRAPHY (as we have already had occasion frequently to observe) is, in strict language, a science; which consists in the knowledge of books, of their different editions and degrees of rarity and curiosity, their real and reputed value, and the ranks which they ought respectively to hold in a system of classification. General bibliography comprises works or catalogues, whose design is to give us a knowledge of every kind of books whatsoever: these are disposed either in alphabetical order, or according to their subject, or in an arbitrary manner. Some catalogues present us with accurate notices of the books they contain; others offer only a simple list: every work that exhibits a notice, or merely the titles of books of different sorts, belongs to general bibliography; while such as treat of books on one particular subject, belong to professional or special bibliography.

Books on general bibliography may be arranged as follows:—

1. Universal libraries or catalogues of books of every description.
2. Bibliographical dictionaries, and treatises on rare books.
3. Treatises on the arrangement of libraries.

4. Catalogues of public and private libraries.
5. Sale catalogues of booksellers.
6. Periodical bibliography, including Reviews and other literary Journals.

The principal works, relative to general Bibliography, are noticed, *infra*, Part III. Chap. IV. Sect. I. II. and III. pp. 513—550, and Chap. V. Sect. I.—VI. pp. 551—741.

§ 4. PROFESSIONAL, or (more correctly) SPECIAL BIBLIOGRAPHY, has reference only to one class of books, and comprehends every work published on the subject of which it treats, while general bibliography makes a selection from among these same works, chooses what is best from each kind, and forms from them a whole of greater or less extent. Hence it is obvious that, although general bibliographies are in themselves both curious and excellent, special bibliographies must possess more interest and greater advantages for those who are desirous of acquiring an intimate acquaintance with books, and with the discoveries which have been made in the different arts and sciences. Special bibliographies may be disposed either alphabetically, or systematically: where the latter method is preferred, either the common arrangement must be pursued, or such other mode as the bibliographer may deem to be the most eligible.

Having thus stated our reasons for assigning the preliminary rank to bibliography, it now

remains that we consider the four faculties, of I. THEOLOGY;—II. PHILOSOPHY;—III. HISTORY;—and IV. LITERATURE; which succeed to it, together with their mutual dependencies.

I. THEOLOGY.

Every thinking and well-regulated mind must consider Religion as an object of paramount interest and importance. The basis of all our knowledge, natural—moral—and religious, is to be found in the HOLY SCRIPTURES; which alone are able to make us wise unto salvation, and which are receiving almost daily confirmation from the discoveries of philosophy. Further, the works which treat of religion, possess in general every character that can render them desirable, whether we consider the importance of the facts they develop, or the sublimity of the doctrines and precepts which they inculcate, and their beneficial tendency in promoting the real happiness and well-being of man. For these reasons (and many others might be adduced) we place the class of THEOLOGY first, in our bibliographical system.

If we trace the gradual developement of the mental faculties, we shall find that man is most struck with sensible impressions; and that the first objects which arrest his infantine and juvenile attention, are some one or other of the

works of creation, by the contemplation of which he is led (at least, if he be under the management of judicious persons) to "look through Nature up to Nature's God." In the further division of the class of Theology, *Natural Religion* demands the first place, as it demonstrates the existence and perfections of Deity; from a consideration of the consummate beauty and order of the works of creation, and of their wonderful adaptation to the different purposes for which they have been designed by Infinite Wisdom.

But, as *Natural Religion* is inadequate to disclose the will of God concerning man, Revelation becomes necessary for this purpose, and also to develop the obligations due from man to his Creator. *Revealed Religion* therefore naturally follows the former: and, since the Holy Scriptures contain the revealed will of God, the various editions of the Old and New Testaments, in the original languages and versions, are first placed in this division. To correct seeming discordances, and explain obscure or difficult passages, we are obliged to have recourse to commentators and critics, both Jewish and Christian; by whose labours the nature, genius, customs, &c. of the sacred writings are elucidated.

Councils are next in order: by them the ecclesiastical discipline of churches is regulated;

world, including the discoveries made in natural and experimental philosophy, together with the arts of peace and war.

As the general principles of philosophy are to be found in Histories of philosophy and philosophers, and in their Works, whether antient or modern, these claim the first place: to them succeed Logic and Metaphysics, the object of which is to investigate the nature of man, the soul, its faculties and sensations, &c. as well as the principles that ought to direct the exercise of its rational powers.

Turning the attention from the knowledge of our mental faculties, we are next led to consider their influence on civil society and the laws by which it is governed. This important science is termed *Ethics*: it includes not only the theory and practice of morals in private life, but also their application to the government of nations and empires, which constitutes *Politics*. Ethics, applied to the regulation of men in civil society, constitutes the science of *Jurisprudence*; it is divided into the Law of Nature, which being infused by God into man at his creation, for his preservation and direction, is immutable. The Law of Nature applied to, and established by universal consent among, the civilized inhabitants of the world, for the settlement of disputes and for the observance of justice and good faith,

nations and empires. Of this application history is the narrative, which holds the third rank in the present system.

In order to acquire a correct notion of history, the situation, manners, customs, &c. of countries should be known, together with the different modes of calculating time: this knowledge is to be derived from the study of *geography, voyages and travels*, and *chronology*. From a survey of *universal* and *ecclesiastical* history, we come to *particular history*, antient and modern: to this succeed *biographical history*, comprising the lives of eminent men in every age of the world, and *monumental history*, which traces the genealogies of sovereigns and noble families; the history of chivalry and nobility, the origin, descent, and claims of dignities,—precedency of nobility and gentry, displays of arms, the practice of military courts of honour, &c.

To complete our acquaintance with history, the knowledge of *antiquities* is indispensable: this science comprehends a view of the manners and customs of antient nations, and their antique monuments now in existence. Lastly, as history is materially illustrated by coins and inscriptions, the study of *Numismatics* and of antient inscriptions and marbles, forms the concluding link in this class of the present system of bibliography.

IV. LITERATURE.

In the progress of nations from barbarism to refinement, literary pursuits are the last to which mankind direct their attention. Literature, therefore, forms the fourth column, that supports our temple of knowledge.

It commences with the theory of *language* and the principles of *grammar*; the application of these to the examination of the works of the learned, constitutes *philology* and *criticism*; by which we are enabled to apply language to the purpose of speaking with persuasion. This art is termed *rhetoric*: it includes both the theory, and the practice of eloquence. *Poetry* succeeds in its various kinds; and the class is terminated by the division of *Literary Miscellanies*, comprising polygraphy (or the works of authors who have written in a variety of styles), dialogues and conversations on different subjects—fables, tales, apologues—satires—proverbs—*facetiae*—hieroglyphics, emblems, and devices—epistolary writers—and lastly such literary and miscellaneous tracts as are not reducible to any preceding class or division.

A
BIBLIOGRAPHICAL SYSTEM,

EXHIBITING

THE ORDER

TO BE PURSUED IN ARRANGING THE FACULTIES AND DIVISIONS

OF A

CATALOGUE.

INTRODUCTION.

BIBLIOGRAPHY.

1. Literary history.
2. History of letters and languages.
3. History of printing.
4. Works introductory to the knowledge of books.
5. Treatises on rare books.
6. Treatises on anonymous, and pseudonymous books—on books condemned, suppressed, &c.
7. Treatises on libraries and their arrangement.
8. Catalogues of imperial, royal, and other public libraries, containing both MSS. and printed books.

9. Catalogues of private libraries.
10. Sale catalogues of booksellers worthy of notice.
11. Periodical bibliography, including reviews and other literary journals.
12. Professional or special bibliography.

THEODOLOGY.

DIVISION I. NATURAL RELIGION.

IN this division are comprised treatises and essays on natural religion, in confutation of atheism, and demonstrating the existence and perfections of the Deity, from a consideration of the works of creation.

DIVISION II. REVEALED RELIGION.

CHAPTER I. HOLY SCRIPTURES.

SECTION 1. Entire Text and Versions of the Bible.

§ 1. Polyglot Bibles—2. Hebrew Bibles—3. Ancient Oriental Versions of the Scriptures, Samaritan, Arabic, Persian, and Syriac—4. Greek Versions—5. Latin Versions—6. English Versions—7. French Versions—8. Italian, Spanish, Portuguese, and Modern Greek Versions—9. German and Dutch Versions—10. Slavonic, Polish, Hungarian, Russian, and Danish Versions—11. Versions in the different Languages of Africa and America—12. Versions in the modern Languages of India, Malay, Tamul, &c. &c. &c.

SECTION 2. The New Testament.

§ 1. Editions of the New Testament in Greek—2. Versions of the New Testament in different Languages.

SECTION 3. Detached Books of the Old Testament, in the Original Languages, and Versions.

SECTION 4. Detached Books of the New Testament, in the Original Languages, and Versions.

SECTION 5. Harmonies.

SECTION 6. Apocryphal Books.

§ 1. Of the Old Testament—2. Of the New Testament.

SECTION 7. Histories of the Bible, and Books of Plates illustrative of the Old and New Testaments.

CHAPTER II. COMMENTATORS AND CRITICS.

SECTION 1. Jewish.

§ 1. Commentators—2. Talmudical and Rabbinical Writers.

SECTION 2. Christian.

§ 1. Commentators, Interpreters, and Paraphrasts—2. Sacred Philology, comprising Introductions to the Study of the Holy Scriptures, Manners and Customs of the Jews, Essays and Treatises on the State of the Sacred Text, on its Style and Idioms, and Accounts of its different Versions—3. Concordances, and Dictionaries of the Bible.

CHAPTER III. COUNCILS.

SECTION 1. On the Authority, &c. of Councils and Synods.

2. Histories of Councils.

3. Collections of Councils.

4. Decrees, Canons, &c. of Councils of the Roman Church.

5. Canons, &c. of Synods of the Reformed Church of England.

CHAPTER IV. ECCLESIASTICAL DISCIPLINE AND RITES.

SECTION 1. Jewish Liturgies, and Treatises on the Jewish Worship.

2. Treatises on the Divine Offices and on the Rites and Ceremonies of the Church.

3. Liturgy and Rites of the Greek and Oriental Churches.

- SECTION 4. Liturgy, Rites, and Indulgences of the Latin or Roman Church.**
5. Liturgies of the Gallican Church.
 6. Discipline and Rites of the Foreign Reformed Churches.
 7. Discipline, Liturgy, and Rites of the United Church of England and Ireland.
 8. Discipline and Rites of the Reformed Church of Scotland, and of Dissenters in the United Kingdom.
 9. Discipline and Liturgies of Religious Orders.
 10. Miscellaneous Offices of Devotion, comprising Horæ, Offices of the Virgin Mary, Prayers by Individuals, &c.

CHAPTER V. FATHERS OF THE CHURCH.

- SECTION 1. Introductions to the Study of the Fathers.**
2. Collections, Extracts, and Fragments of the Works of the Fathers.
 3. Works of the Greek Fathers.
 4. Works of the Latin Fathers.
The Works of all the Fathers should be chronologically arranged.

CHAPTER VI. MODERN DIVINES.

- SECTION 1. Of the Greek Church.**
- Divines of the Latin and Reformed Churches.
 2. Dictionaries and General Treatises on Theology.
 3. Schoolmen and their Commentators.
 4. Dogmatic Divines.
Those who treat on the Doctrines, Sacraments, and general Truths taught by the Christian Church.
 5. Moralists and Casuists.
Those who discuss particular Duties, Virtues and Vices, Laws, Sports, Cases of Conscience, Confession, &c.

SECTION 6. Catechetic Divines.

Creeds, Catechisms, Confessions of Faith, Articles of Religion, and Explanations thereof.

SECTION 7. Polemic Divines.

§ 1. Works on the Truth of the Christian Religion, against Atheists, Deists, Jews, Mohammedans, &c.—2. Controversial Treatises by Catholics and Protestants, on different Points of Faith and Practice—3. Works in favour of Toleration, and the Re-union of Christians of different Denominations.

SECTION 8. Parenetic Divines.

Sermons and Treatises on Hortatory and Practical Divinity.

SECTION 9. Mystic and Ascetic Divines.

Comprising whatever relates to the Mysteries of the Christian Religion, Fanatical, Visionary, and Enthusiastical Writers, &c.

DIVISION III. PAGAN THEOLOGY.

CHAPTER I. GREEK AND ROMAN MYTHOLOGY.

II. THE RELIGION OF THE ANTIENT BRITONS AND GAULS.

III. THE RELIGION OF THE CHINESE, INDIANS, PERSIANS, AND OTHER NATIONS OF ASIA, AFRICA, AND AMERICA.

IV. MOHAMMEDAN THEOLOGY.

 II.

PHILOSOPHY.

DIVISION I. HISTORY OF PHILOSOPHY AND PHILOSOPHERS.

(Including their epistolary Writings.)

In most bibliographical schemes, the epistles of the antiient philosophers form part of the division *Polygraphy*, which is

usually placed at the end of the class of Belles Lettres: but as much of our knowledge of the private history and opinions of antient philosophers can only be obtained from their letters, particularly of Cicero, Pliny, &c. we place their epistolary writings in this division.

DIVISION II. WORKS OF ANTIENT AND MODERN PHILOSOPHERS.

CHAPTER I. WORKS OF ANTIENT PHILOSOPHERS.

The antient Greek and Roman philosophers should be placed here: (the works attributed to) Hermes Trismegistus, Pythagoras, Democritus, Ocellus, Socrates, Epicurus, Plato, Aristotle, and others, who lived before the destruction of the Roman Empire; together with their commentators and disciples.

CHAPTER II. MODERN PHILOSOPHERS.

The works of Bacon, Locke, Newton, Descartes, Gassendi, Pascal, Malebranche, S'Gravesande, Kant, and others; the works of Addison, Bishop Berkeley, Burke, Dr. Franklin, Dr. Johnson, Sir William Jones, Milton (in prose), Swift, &c. Those of Voltaire, Diderot, Condorcet, and others, which treat on many other subjects besides philosophy, should be placed among the polygraphic writers at the end of the class of Belles Lettres.

DIVISION III. LOGIC.

CHAPTER I. ANTIENT WRITERS AND SYSTEMS.

CHAPTER II. MODERN WRITERS AND SYSTEMS.

DIVISION IV. METAPHYSICS.

CHAPTER I. ANTIENT METAPHYSICIANS, AND THEIR COMMENTATORS.

CHAPTER II. MODERN METAPHYSICAL WRITERS.

SECTION 1. Systems of Metaphysics.

2. Treatises on Man, on the Soul, its Faculties, and Sensations, on Prescience, Providence, &c.

CHAPTER III. OCCULT PHILOSOPHY.

- SECTION 1. Treatises on the Cabala, and on Magic.
2. Treatises on Apparitions, Dæmons, Sorcerers, &c.
 3. Treatises for and against Magic.
 4. Divination by Dreams, Palmistry, &c.
 5. Writers on Physiognomy, Antient and Modern.

DIVISION V. ETHICS.

CHAPTER I. MORALS.

- SECTION 1. Antient Moral Philosophers, and their Commentators.
2. Modern Moral Philosophers.
- § 1. Systems of Morals.—2. Treatises on the Passions, Virtues, Vices, Suicide, Gaming, Good-fortune, &c.—3. Rules for the Conduct of Civil Life.—4. Essays and Treatises on Education.

CHAPTER II. POLITICS.

- SECTION 1. Treatises and Essays on Politics and Government in general.
- § 1. Antient.—2. Modern.
- i. General Treatises.—ii. On Civil and Political Society.—iii. Different Systems of Government, and the respective Powers of Sovereigns and People.—iv. Treatises on the Duties of Ambassadors, Ministers, Counsellors of State, and Courtiers.
- SECTION 2. Political Economy.
- § 1. General Treatises on Political Economy.—2. Treatises on Population, Industry, Mendicity, Police.—3. Finances, Money, and Paper Credit.—4. Trade and Commerce.—5. Inland Navigation.

CHAPTER III. JURISPRUDENCE.

- SECTION 1. Introductions to the Study of Jurisprudence, and General Treatises on Laws.
2. The Law of Nature and Nations.
- § 1. General Treatises and Systems.—2. Law of Nations, as

regulated by Treaties (including Collections of Diplomatic Papers affecting the different Nations of Europe in general).—3. Public Law, comprising Treatises on the Constitutions of different Nations.

SECTION 3. Laws of the Greeks, and other Antient Nations except the Romans.

4. Roman Law.

§ 1. Introductions to and Histories of the Roman Law.—2. Civil Law of Rome, and Commentators thereon.—3. The Roman Law applied to the Law of England and France.

SECTION 5. Canon Law.

Including Bulls, Decretals, Canons, and Letters of the Popes.

SECTION 6. British Law.—Public and Constitutional.

§ 1. Succession and Title to the Crown.—2. Of the King, his Prerogative and Supremacy.—3. Antiquity and Powers of Parliament.—4. Constitution, Privileges, and Proceedings of the House of Lords.—5. Constitution, Privileges, and Proceedings of the House of Commons.—6. Privileges of the Subject and Constitution in General.

SECTION 7. Municipal Law of Britain.

§ 1. Histories of the English Law.—2. Anglo-Saxon, Danish, and Anglo-Norman Laws.—3. Treatises and Institutes of the Law of England.—4. Criminal and Crown Law.—5. Forest Law.—6. Law of Civil Rights.

i. Charters granted to Corporations and other Public Bodies, and to Private Individuals.—ii. Conveyancing, Court-keeping, Tenures, Copyholds, &c.

§ 8. Ecclesiastical Law.

i. Treatises on Ecclesiastical Law in General.—ii. The Laws of England relative to Dissenters and Roman Catholics.—iii. Tythes, appropriate and impropriate.—iv. Wills, Executors, and Administrators.

§ 9. Statutes and Acts of Parliament.

i. Collections of Statutes.—ii. Abridgements and Extracts of Statutes.—iii. Private Acts of Parliament, separately printed.

§ 10. Judicial proceedings.

- i. Court of Chancery.
- ii. Court of King's Bench.
- iii. Court of Common Pleas.
- iv. Court of Exchequer.
- v. Court of Admiralty.
- vi. Ecclesiastical Courts.
- vii. Star Chamber.
- viii. Court of Augmentations.
- ix. Duchy Court.
- x. High Commission Court.
- xi. Court of Wards and Liveries.
- xii. Inferior Courts.
- xiii. Reports, Year Books, Entries, and Pleadings.

§ 11. Miscellanies of English Law, comprising Arguments, Charges, Common Place Books, and Legal Collections, Readings, &c. not included under any former Division.—12. Laws of Wales.—13. Laws of Scotland.—14. Laws of Ireland.

SECTION 8. Foreign Laws.—The Law of France.

§ 1. The Law of France previously to the Revolution in 1789.

- i. General Treatises on the Law of France.—ii. Antient Laws, Constitutions, and Capitularies, Edicts and *Arrêts* of the Kings of the different Races.—iii. Criminal Law of France.—iv. Maritime Law of France.—v. Ecclesiastical Law of France.

§ 2. Law of France from the Revolution of 1789 to the Promulgation of the Code Napoleon.—3. The Code Napoleon, and Commentaries thereon.

SECTION 9. Laws of Italy.

10. Laws of Spain and Portugal.
11. Laws of Germany and Hungary.
12. Laws of Denmark, Sweden, Norway, and Russia.
13. The Laws of Holland, Switzerland, and the minor States of Europe.
14. Laws of Asia, Africa, and America.

DIVISION VI. SCIENCES.

Introductions to and History of the Sciences, General Treatises, Encyclopædias, and other Dictionaries.

CHAPTER I. PHYSICS OR NATURAL AND EXPERIMENTAL PHILOSOPHY.

SECTION 1. Antient writers.

SECTION 2. Modern writers.

§ 1. Dictionaries, Systems, and General Courses of Natural and Experimental Philosophy. Surveys of the Animal, Vegetable and Mineral Kingdoms.—2. Natural Magic, and Recreations in Natural Philosophy.—[For Magic, strictly so called, see Div. IV. Ch. III. Sect. 1. *supra*, p. 379.]

CHAPTER II. NATURAL HISTORY.

SECTION 1. Antient Writers.

Modern Writers.

SECTION 2. Dictionaries, Systems, and Elementary Treatises.

SECTION 3. Dissertations, and Treatises on different Parts of Natural History.

SECTION 4. Natural History of the Earth, of Mountains and Volcanoes.

SECTION 5. Natural History of Waters.

SECTION 6. The Mineral Kingdom.

§ 1. Introductions, Dictionaries, Systems, and Elementary Treatises on Geology and Mineralogy.—2. Treatises on Metals and the Working of Mines.

SECTION 7. The Vegetable Kingdom, or Botany.

§ 1. Dictionaries, and Elementary Treatises on Botany.—2. Physiology and Anatomy of Plants,—their Natures, Vegetation, and Uses.—3. Herbals, and Collections of Engravings of Plants and Flowers.—4. Systems of Botany.—5. General History of Trees, Shrubs, and Plants.—6. Works, treating on rare Plants, or on particular Classes or Families of Plants.—7. Monographs or particular Histories of some Genera and Species of Plants.—8. Medical Botany,—Treatises on Trees and Plants used in Medicine.—9. History of marine Plants.—10. Histories of the Plants of different Countries.

SECTION 8. The Animal Kingdom, or Zoology.

§ 1. Dictionaries of Animals, Systems and Elementary Treatises of

Classification.—2. Anatomy of Animals or Comparative Anatomy.—3. General Histories of Animals.—4. History of Animals of different Countries.—5. Natural History of Zoophytes, or of Bodies partaking both of Animal and Vegetable Nature.—6. Entomology, or Natural History of Insects.

i. Elementary Treatises and Systems of Classification.—ii. General History of Insects.—iii. Particular History of some Insects.—iv. History of the Insects of particular Countries.—v. Crustaceous Insects.—vi. Marine and Fresh Water Insects, Polypes, Worms, &c.

§ 7. Conchology.

i. Systems of Classification;—General History, and Elementary Treatises on Shells.—ii. Particular Histories of Shells.—iii. Histories of Shells, found in different Countries:

§ 8. Ichthyology.

i. General History of Fishes.—ii. Particular Histories of Fishes.—iii. Histories of the Fishes of different Countries.—iv. Cetaceous Fishes.

§ 9. Amphibious Animals and Reptiles.—10. Ornithology.

i. Systems of Classification and General Treatises.—ii. General History of Birds.—iii. Particular History of some Birds.—iv. History of the Birds of different Countries:

§ 11. Natural History of Quadrupeds.

i. Particular History of several Species of Quadrupeds.—ii. Mammiferous Animals.

§ 12. Natural History of different Countries.—13. Miscellanies of Natural History.—14. Cabinets and Collections of Natural History.—15. Monsters, Prodigies of Nature, Lusus Naturæ Giants.—16. Natural History of Man.

CHAPTER III. MEDICINE.

SECTION 1. History of Medicine.

2. Dictionaries and Bibliothecæ of Medicine.
3. General Elementary Treatises.
4. Works of Antient Medical Writers.

§ 1. Greek Writers.—2. Latin Writers.—3. Arabic Writers.

5. Collective Works of Modern Writers on Medicine.

SECTION 6. Anatomy.

§ 1. History of Anatomy, and Anatomical Collections.—2. Ancient and Modern Anatomists. [For the Greek Anatomists, see the Greek Writers on Medicine.]—3. Treatises on the Anatomy of particular Parts of the Human Body.—4. Anatomical Miscellanies, including Theses, &c.

SECTION 7. Physiology.

§ 1. General Treatises and Systems of Physiology.—2. Treatises and Essays on particular Branches of Physiology.

SECTION 8. Hygiene, or the Art of Preserving Health.

Treatises on the Art of preserving Health and the Prolongation of Life.

SECTION 9. Dietetics.

§ 1. Treatises on Diet and Regimen, Aliments, &c.—2. Treatises on Cookery.

SECTION 10. Pathology, or the Knowledge of Diseases.

§ 1. Elements, Principles, and General Treatises.—2. Treatises on the Signs and Symptoms of Diseases, on their Crises, and on the Pulse.

SECTION 11. Therapeutics, or the Art of Healing.

§ 1. General Treatises on Practical Medicine.—2. Treatises on particular Diseases, Agues, Epidemic Diseases, Fevers, Diseases of the Skin, of Women and Children, of particular Climates, of Soldiers and Seamen, &c.

SECTION 12. Legal Medicine.

13. The Materia Medica.

§ 1. General Treatises.—2. Treatises on Poisons and Antidotes.

14. Secret or Quack Medicines.

15. Miscellaneous Medical Productions.

Comprising Medical Journals, Theses, &c.

16. Surgery.

§ 1. History of Surgery.—2. General Treatises on Surgery.—3. Ancient and Modern Surgeons, whose Works are collected toge-

ther.—4. Treatises on particular Surgical Operations.—5. Midwifery.—6. Miscellaneous Surgical Productions.

SECTION 17. Pharmacy.

SECTION 18. Veterinary Medicine.

CHAPTER IV. CHEMICAL PHILOSOPHY.

SECTION 1. Chemistry, proper.

Dictionaries, and Systems of Chemistry in General.

SECTION 2. Vegetable, Animal, and Agricultural Chemistry.

SECTION 3. Chemistry as applied to the Arts and Manufactures in General.

SECTION 4. Meteorology.

SECTION 5. Electricity—Magnetism—Galvanism.

For Chemistry, as applied to Metals, see Metallurgy; see Chap. II. Sect. 6.—As applied to Cookery, see Chap. III. Sect. 9, p. 384, *supra*.—As applied to Pyrotechny, see Div. VII. Chap. I. Sect. 7. p. 387, *infra*.

SECTION 6. Alchymy.

§ 1. History of Alchymy, and Collections of Alchemical Works.
—2. Works of Antient and Modern Alchymists comprising Treatises on the Philosopher's Stone, Panaceas, Universal Elixirs, &c. &c.

CHAPTER V. MATHEMATICS,

And the Sciences which depend on them.

SECTION 1. History of the Mathematics.

SECTION 2. Antient Mathematicians, Greek and Latin.

SECTION 3. Dictionaries and Elementary Treatises on Mathematics.

SECTION 4. Works of Modern Mathematicians, who treat of several Branches of that Science.

SECTION 5. Pure Mathematics.

§ 1. Courses of pure Mathematics.—2. Arithmetic.—3. Algebra, both elementary and infinitesimal.—4. Geometry, elementary and

transcendental.—5. Practical Geometry: Land Surveying.—6. Logarithms and Mathematical Tables.—7. Treatises on Mathematical Instruments.—8. Mathematics applied to Calculations of Probabilities, Life Annuities, &c.

SECTION 6. Mechanical Philosophy, or Mixed Mathematics.

§ 1. Mechanics.

i. General Treatises.—ii. Dynamics.—iii. Hydrodynamics, including Hydraulics, Hydrostatics and Pneumatics.

§ 2. Collections of Machines.—3. Astronomy.

i. History of Astronomy.—ii. Antient Astronomers.—iii. Modern Astronomers Elementary and General Treatises.—iv. System of the World, Celestial and Physical Mechanics.—v. Treatises on Planets, and their Satellites, on Stars and Comets.—vi. Astronomical Observations.—vii. Astronomical Tables.—viii. Treatises on Astronomical Instruments.—ix. Celestial Atlases.—x. Astrology, and Astrological Predictions.—xi. Treatises on the Calendar, and see also Chronology, *infra*, p. 389.—xii. Dialling, and the Measuring of Time by Clocks and Watches.

§ 4. Optics, Catoptrics, and Dioptrics.—5. Perspective.—6. Acoustics.

§ 7. Music.

Music is usually classed among the Liberal Arts; but as its Theory is founded on Mathematical Principles, it certainly ought to be placed among the Sciences that depend on Mathematics.

i. History of Music.—ii. Antient Writers on Music.—iii. Modern Writers on Music, Dictionaries and Elementary Treatises on the Theory of Music.—iv. Treatises on Instrumental and Vocal Music.

§ 8. Navigation.

i. History of Navigation, General and Elementary Treatises thereon.—ii. Naval Architecture and the Working of Ships.—iii. Practical Navigation.

DIVISION VII. ARTS.

CHAPTER I. ARTS OF PEACE,

SECTION 1. Dictionaries and General Treatises on Arts, Trades, and Manufactures.

SECTION 2. Art of Memory, natural and artificial.

SECTION 3. Art of Writing and Printing.

Elementary Treatises on these Arts : the History of them properly belongs to Bibliography.

SECTION 4. The Fine Arts.

§ 1. General Treatises and Dictionaries of the Fine Arts.—2. Art of Design.—3. Painting.

History of the Art; General Treatises on it; Collections of Engravings of eminent Painters, classed according to their different Schools.

§ 4. Engraving.

History of the Art; Treatises on it; Catalogues of Engravers and their Works; Collections of Engravings, arranged according to the different Schools; Collections of Costumes.

§ 5. Sculpture.

§ 6. Civil Architecture.

i. History, Dictionaries, and Elementary Treatises.—ii. General Treatises, Antient and Modern.—iii. Treatises on particular Branches of Civil Architecture.—iv. Collections of Descriptions of Antient and Modern Edifices.—v. Arts of Carpentry, Joining, and Manufacture of Looms.

SECTION 5. Rural and Domestic Economy.

§ 1. Antient Writers.—2. Modern Writers.

i. Dictionaries and Elementary Treatises.—ii. Systems of Agriculture and General Treatises.—iii. Essays and Treatises on the Cultivation of particular Crops, Management of Forests, &c.—iv. Grazing, and the Management of Cattle.—v. Horticulture. Dictionaries and Practical Treatises on Gardening, and the Culture of particular Fruits, &c.

SECTION 6. Manufactures.

Treatises on particular Manufactures.

SECTION 7. Gymnastic and other Mechanical Arts.

§ 1. Pyrotechny—Art of making Fire-Works.—2. Gymnastic Exercises—Wrestling, Riding, Swimming, Dancing, Hunting, Fishing.—3. Games of Chance and Amusement.

CHAPTER II. ARTS OF WAR.

SECTION 1. Art of making Arms.

SECTION 2. Military Tactics.

§ 1. Antient Authors.—2. Modern Authors.

i. History and Treatises on the Modern Art of War.—ii. Fortification,

SECTION 10. Voyages in Africa and America.

SECTION 11. Travels in Europe.

§ 1. Travels in several Parts of Europe.

[Travels and Tours in England will be found *infra*.]

i. Russia in Europe, Sweden, Denmark and Norway.—ii. The Netherlands, Germany, Hungary and Poland.—iii. France and Switzerland.—iv. Italy.—v. Spain and Portugal.—vi. Turkey in Europe.

SECTION 12. Travels in Asia.

§ 1. Travels in different Parts of Asia.—2. In Asiatic Greece, Syria and Palestine.—3. In Arabia.—4. Persia and the East Indies.—5. China and Tartary.—6. Siberia and Kamtschatka.—7. Voyages to the South Sea and South Pole.—8. Asiatic Islands—Austral Asia—Polynesia.

SECTION 13. Travels in Africa.

§ 1. Travels in different Parts of Africa.—2. Egypt, Nubia, Abyssinia.—3. Mohammedan States in the North of Africa.—4. The Western Coast and Interior.—5. The Cape of Good Hope and Caffraria.—6. African Islands.

SECTION 14. Travels in America.

§ 1. Different Parts of America.—2. North America.—3. South America.—4. American Islands.—5. Travels in quest of a North-West Passage.

CHAPTER IV. CHRONOLOGY.

SECTION 1. Systems and Treatises on Chronology in general.

SECTION 2. Systems and Treatises on the Chronology of particular Nations and Periods.

SECTION 3. Chronological Tables.

DIVISION II. UNIVERSAL HISTORY.

CHAPTER I. CIVIL HISTORY, ANTIENT AND MODERN.

CHAPTER II. ECCLESIASTICAL HISTORY.

SECTION 1. General History of Religions.

SECTION 2. General History of the Christian Church.

SECTION 3. Ecclesiastical History of different Countries.

[For the Ecclesiastical History of England and Scotland, see Div.

III. Ch. II. Sect. 2. § 4. and Sect. 3. § 4. *infra*.]

SECTION 4. History of Popes, Cardinals and Conclaves.

SECTION 5. History of the Inquisition.

SECTION 6. History of Religious Orders.

SECTION 7. History of Orders of Knighthood, instituted for the Defence of the Church.

[For the History of Councils, see Class I. Div. II. Chap. III. Sect. 2, *supra*. Lives of Saints, Martyrs, &c., see Div. IV. Ch. II. *infra*.]

SECTION 8. History and singular Practices of some Societies, known under the Names of Brethren of the Royal Cross, Freemasons, &c.

DIVISION III. PARTICULAR HISTORY.

CHAPTER I. ANTIEN T HISTORY.

SECTION 1. History of the Origin of Nations.

SECTION 2. General and particular History of several Antient Nations.

SECTION 3. History of the Jews.

SECTION 4. Particular History of the Phenicians, Babylo-
nians, Egyptians, Persians, &c.

SECTION 5. General and particular History of Greece.

§ 1. Antient Authors.—2. Modern Authors.

SECTION 6. General and particular History of the Roman Republic and Empire.

§ 1. Antient Authors.—2. Modern Authors.

SECTION 7. Byzantine History.

CHAPTER II. MODERN HISTORY.

SECTION 1. General History of Modern Europe.

SECTION 2. England.

§ 1. Topography of England.

- i. Topography and Antiquities of England, in general; comprising Statistical and Political Surveys, Travels and Tours, Manners and Customs.—ii. Topography and Antiquities of the several Counties, and of the several Places comprised in them; including Accounts of Mineral Waters, Ruins, Monasteries, &c. &c. &c.

§ 2. *Civil History of England—Narrative.*

i. Collections, illustrative of the General History and Antiquities of England, Ceremonial of Coronations, &c.

ii. Chronicles and Antient Histories of England.

(A) Before the Conquest.

(a) During the Time of the Antient Britons and Romans.

(b) During the Time of the Saxons.

(c) During the Time of the Danes.

(d) During the Time, both of the Saxons, and of the Danes.

(B) Annals, Chronicles, Histories, since the Conquest, and Memoirs of particular Reigns.

iii. History of England, during particular Reigns, and Memoirs relative thereto.—iv. Accounts of Military and Naval Expeditions, undertaken by British Forces.—v. Parliamentary History of England, including the History, Debates, and other Proceedings of Parliament.

§ 3. *Civil History of England.—Documentary.*

i. Royal Charters connected with British History.—ii. Diplomatic Instruments, viz. Treaties, Instructions to Ambassadors, Correspondence, &c. chronologically arranged.—iii. Proclamations, Journals, and Books of the Privy Council.—iv. Parliamentary, viz. Rolls and Journals of Parliament.—v. Mint—Public Revenue—and Royal Expenditure.

1. Coin and Money of England.

2. Mint.

3. Public Revenue, Aids, Taxes, Subsidies, &c.

4. Royal Expenditure and Estates.

vi. Ordnance and Military Documents.—vii. Admiralty and Navy; Victualling and Manning thereof.—viii. Trade.—ix. Customs, Excise.

§ 4. *Ecclesiastical History of England.*

SECTION 3. History of Scotland.

§ 1. *Topography of Scotland*, comprising County Histories, Surveys, Cartularies, and Registers of Religious Houses, &c.

§ 2. *Civil History of Scotland.*

i. Collections, illustrative of the General History, &c. of Scotland.—

ii. Chronicles and Antient History,—Memoirs of particular Reigns.—

iii. History of Scotland, during particular Periods.

3. *Documentary.*

i. Royal Charters, and other Records.—ii. Diplomatic Instruments, viz. Instructions to Ambassadors, and other State Papers.

§ 4. *Ecclesiastical History of Scotland.*

SECTION 4. History of Wales.

§ 1. *Topography of Wales*, (comprising County Histories, Surveys of particular Places, Grants, Cartularies, and Registers of Religious Houses, &c. &c.)—2. Civil History of Wales.

SECTION 5. History of Ireland.

§ 1. *Topography of Ireland*.—2. *Civil History of Ireland*.

i. Narrative.—ii. Documentary, (comprising Official Lists &c. relative to the Settlement and Government of Ireland, Proceedings in the Irish Parliament before the Union, &c.)

SECTION 6. Islands forming Part of Great Britain.

The Norman, Western and other Isles.

SECTION 7. History of European States (geographically disposed from the North to the South of Europe.)

§ 1. General History of the Northern nations.—2. Denmark and Norway, (including Greenland.)—3. Sweden, (including Lapland.)—4. Russia.—5. Poland.—6. Germany.

i. General History of the Germanic Empire, and Emperors.—ii. History of the House of Austria, (including that of Hungary.)—iii. Prussia.—iv. Ancient Circles of Germany, now forming the Confederation of the Rhine.—v. The Hanse Towns and other German States.

§ 7. The United Provinces and the Netherlands.

i. The United Provinces.—ii. The Netherlands.

§ 8. France.

i. Topographical and Statistical Accounts of France, Antient and Modern.—ii. History of the Celts.—iii. Antiquities of France—Ceremonies of crowning the Sovereigns.

iv. *Civil History*—*Narrative*, (comprising General History of the Affairs of particular Provinces, relative thereto, Chronicles, and other Documents, ranged under the different Ranges of Time, to the present Time.)

v. *Civil History*—*Documentary*, (comprising other Diplomatic Papers.)—vi. *Genealogy*.

§ 9. Switzerland and Geneva.

i. Switzerland.—ii. Geneva.

§ 10. Spain.

- i. Topographical Descriptions of Spain and its different Provinces.—
- ii. General History of Spain.—iii. History of Spain under particular Reigns.—iv. Miscellanies relative to the History of Spain.

§ 11. Portugal.—12. Italy.

- i. Collections relative to Italian History in general.—ii. Collections relative to the History of Modern Rome and the Papal See.—iii. History of other Italian States.—iv. History of the Italian Islands.

§ 13. The Ottoman Empire.

SECTION 8. History of Asiatic Countries.

- § 1. Geography and History of the different Nations of Asia.—2. History of the Arabs and Saracens—3. History of Persia—4. History of the different Countries of India—5. History of China, the Tartars, &c.—6. Miscellaneous Collections relative to Asiatic History.

SECTION 9. History of Africa.

- § 1. General History—2. History of Egypt—3. History of the Barbary States, Ethiopia, and other parts of Africa—4. History of the African Islands.

SECTION 10. History of America.

- § 1. General History—2. History of Peru, Chili, Paraguay, Brazil and Cayenne — 3. History of Mexico, California, Florida, and Louisiana—4. History of the American or West Indian Islands.

DIVISION IV. BIOGRAPHICAL HISTORY.

General Dictionaries of Biography, Antient and Modern.

CHAPTER I. CIVIL BIOGRAPHY.

SECTION I. Antient Biography,

Containing Lives, Portraits, &c. of Eminent Men among the Antients.

SECTION II. Modern Biography.

- § 1. British (including Lives, Portraits, Trials, Speeches, Funeral Discourses in Honour of Eminent Men, &c.)—2. Foreign Biography—3. Lives and Eulogies of Eminent Artists.

CHAPTER II. ECCLESIASTICAL BIOGRAPHY,

Comprising Martyrologies, the Lives, Acts, Miracles, Passions,

&c. of Saints, Fathers, Confessors, &c. of the Greek and Latin Churches.

DIVISION V. MONUMENTAL HISTORY.

CHAPTER I. GENEALOGICAL HISTORY.

SECTION 1. British.

SECTION 2. Foreign.

CHAPTER II. HERALDRY.

SECTION 1. History and Regulations of Heralds.

SECTION 2. History of Chivalry and Nobility.

§ 1. History of Knights and Knighthood, in general—2. History of British Orders of Knighthood—3. History of Foreign Orders of Knighthood, &c.

[For Orders of Knighthood instituted for the Defence of the Church, see Div. II. ch. II. sect. 7, p. 390, *supra*.]

§ 4. Heraldic Miscellanies,

Comprising Miscellaneous Heraldic Treatises and Collections, Claims of Dignities and Titles of Honour, Precedency of Nobility and Gentry, Grants and Displays of Arms, the Practice of Military Courts of Honour, Justs, Tournaments, and Single Combats, &c.

i. British—ii. Foreign.

DIVISION VI. ANTIQUITIES—NUMISMATICS.

Dictionaries, General Treatises, &c. on Antiquities.

CHAPTER I. MANNERS AND CUSTOMS OF THE ANTIENTS.

SECTION 1. Religious Customs of the Antients, in general.

SECTION 2. Civil and Military Customs.

SECTION 3. Money, Weights, and Measures.

SECTION 4. Religious, Civil, and Military Customs of Antient Oriental Nations.

SECTION 5. Manners and Customs of the Greeks, Civil, Religious and Military.

SECTION 6. Manners and Customs of the Romans, Civil, Religious, and Military.

SECTION 7. Manners and Customs, Civil, Religious and Military of the Gauls, and other Antient Nations.

CHAPTER II. ANTIQUE MONUMENTS.

- SECTION 1.** Collections of Antique Monuments, in general.
- SECTION 2.** Descriptions of Cabinets of Antique Monuments.
- SECTION 3.** Antique Monuments found at Herculaneum.
- SECTION 4.** Architectural Monuments of the Antients, found in different countries.
- SECTION 5.** Obelisks, Pyramids, Pillars, Triumphal Arches.
- SECTION 6.** Mosaic Pavements.
- SECTION 7.** Antique Statues and other Sculptures.
- SECTION 8.** Gems and Engraved Stones.
- SECTION 9.** Vases, Lamps, Seals, &c.

CHAPTER III. NUMISMATICS.

- SECTION 1.** Introductions to, and General Treatises on, Numismatics.
- SECTION 2.** Collections and Cabinets of Medals.
- SECTION 3.** Medals of Antient People, Towns, and Kings.
- SECTION 4.** Dissertations on some Particular Medals.

CHAPTER IV. INSCRIPTIONS AND MARBLES.

- SECTION 1.** Introduction to the Study of Antique Inscriptions and Marbles.
- SECTION 2.** Collections of Inscriptions and Marbles, Greek and Roman.
- SECTION 3.** Phenician, Chinese, and other Inscriptions.

* * In most Bibliographical Systems, Literary History forms the concluding division of the faculty of History: for reasons already assigned, p. 361—365, *supra*, we have placed it at the head of Bibliography, to which it more properly belongs. The History of the different branches of Sciences and the Arts is placed at the head of the class or division in the present System to which it belongs.

IV.

LITERATURE.*Courses of Study, and Introductions to the Study of Literature.*

DIVISION I. GRAMMAR.

CHAPTER I. TREATISES ON THE THEORY AND FORMATION OF LANGUAGES.

CHAPTER II. ALPHABETS, AND POLYGLOT DICTIONARIES OF LANGUAGES.

CHAPTER III. TREATISES AND ESSAYS ON GRAMMAR IN GENERAL.

SECTION 1. Antient Grammarians.

SECTION 2. Modern Grammarians.

CHAPTER IV. GRAMMARS AND DICTIONARIES OF VARIOUS LANGUAGES.

SECTION 1. Antient Oriental Languages, Hebrew, Arabic, Samaritan, Chaldee, &c.

SECTION 2. Modern Oriental Languages.

SECTION 3. Greek.

§ 1. General Treatises on Greek Grammar—2. Dictionaries and Lexicons of the Greek Language—3. Grammars and Dictionaries of the Modern Greek Language.

SECTION 4. Latin.

§ 1. General Treatises on Latin Grammar—2. Dictionaries of the Latin Language.

SECTION 5. English.

§ 1. Treatises on English Grammar—2. Dictionaries of the English Language.

SECTION 6. Welsh, Scotch and Irish.

SECTION 7. French.

§ 1. Treatises on the Origin and Etymology of the French Lan-

guage—2. Treatises on French Grammar—3. Dictionaries of the French Language—4. Grammars and Dictionaries of the Dialects of different Parts of France.

- SECTION 8. Italian.
- SECTION 9. Spanish and Portuguese.
- SECTION 10. Flemish and Dutch.
- SECTION 11. German and Swiss.
- SECTION 12. Hungarian, Illyrian, and other Languages.
- SECTION 13. Antient Northern Languages.
- SECTION 14. Modern Northern Languages, Russian, Danish, Swedish, &c.
- SECTION 15. American Languages.

CHAPTER V. PHILOLOGY AND CRITICISM.

- SECTION 1. General Treatises on Philology, Dictionaries for understanding Antient Authors, Dictionaries of Literature.
- SECTION 2. Antient Critics, Greek and Latin.
- SECTION 3. Modern Critics, Latin, English, French, Spanish, &c.

DIVISION II. RHETORIC.

CHAPTER I. TREATISES ON THE THEORY OF RHETORIC.

- SECTION 1. Antient.
 - § 1. Greek—2. Latin.
- SECTION 2. Modern.

CHAPTER II. ORATORS.

- SECTION 1. Antient.
 - § 1. Greek Orators—2. Latin Orators.
- SECTION 2. Modern Orators.

Sermons are by some placed in this class; but they more properly are referred to that of Theology.
- SECTION 3. Oriental Orators.

SECTION 11. Poets of the Northern Nations of Europe.

SECTION 12. Oriental Poets.

CHAPTER II. MODERN DRAMATIC POETS.

SECTION 1. General Introductions to Dramatic Poetry.

SECTION 2. Modern Latin Dramatic Poets.

SECTION 3. English Dramatic Poets.

§ 1. History of the English Stage; Treatises on the Dramatic Art—
2. Collections of the Works of English Dramatic Poets—3. English Tragic Poets—4. English Comic Poets—5. English Operas and Farces.

SECTION 4. French Dramatic Poets.

§ 1. History of the French Stage; Treatises on the Dramatic Art—
2. Collections of French Dramatic Poets—3. Works of French Dramatic Poets—4. Academy of Music, French Operas, Farces, &c.

SECTION 5. Italian Dramatic Poets.

§ 1. History and Treatises on the Italian Theatre—2. Works of Italian Dramatic Poets.

SECTION 6. Spanish and Portuguese Dramatic Poets.

SECTION 7. German, Danish, and Russian Dramatic Authors.

CHAPTER III. WORKS OF IMAGINATION NOT IN METRE.

(Romances, Novels, Adventures, Fictitious Voyages, &c.)

SECTION 1. Greek Romances.

SECTION 2. Latin Romances.

SECTION 3. English.

SECTION 4. French.

SECTION 5. Italian.

SECTION 6. Spanish.

SECTION 7. German, &c.

DIVISION IV. LITERARY MISCELLANIES.

CHAPTER I. POLYGRAPHIC AUTHORS,

(Or those who have written in a Variety of Styles.)

SECTION 1. Antient (Greek and Latin).

SECTION 2. Modern, in English, Latin, French, and other Languages.

CHAPTER II. DIALOGUES AND CONVERSATIONS ON DIFFERENT SUBJECTS.

CHAPTER III. FABLES, TALES, AND APOLOGUES.

SECTION 1. Antient (Greek and Latin).

SECTION 2. Modern.

§ 1. Oriental—2. European, in Various Languages.

CHAPTER IV. SATIRES AND INVECTIVES, DEFENCES AND APOLOGIES.

CHAPTER V. PROVERBS, ADAGES, APOPTHEGMS, MORAL SENTENCES.

SECTION 1. Greek and Latin.

SECTION 2. Modern, in Various Languages.

CHAPTER VI. FACETIÆ, BON MOTS, AND WORKS IN ANA.

CHAPTER VII. HIEROGLYPHICS, SYMBOLS, EMBLEMS, AND DEVICES.

CHAPTER VIII. EPISTOLARY WRITERS.

[For the Epistles of the Greek and Latin Philosophers, *vide supra*, Class ii. Div. i. page 377.]

SECTION 1. Treatises on Epistolary Writing.

SECTION 2. Collections of Modern Letters written in Various Languages.

CHAPTER IX. LITERARY AND MISCELLANEOUS TRACTS.

Collections of Tracts on Various Subjects, Extracts from Various Authors, Common-place Books, &c.

In the preceding pages it has been attempted to exhibit a system of Bibliography, adapted to the classification of a large library: the following compendium of it (formed on the principles

already detailed ') is offered, for the arrangement of a smaller collection of books.

BIBLIOGRAPHY.

WORKS treating on Literary History—the History of Languages and Letters—on the Knowledge and Rarity of Books—Catalogues of Libraries, Reviews, and Literary Journals.

I. THEOLOGY.

Works treating on Natural and Revealed Religion, and Introductory to the Study of the Scriptures—Editions of the Holy Scriptures (Texts and Versions).

Harmonies—Commentators—and Critics.

Sermons and other Works of Divines, Polemical and Practical.

Mohammedan and Pagan Theology.

II. PHILOSOPHY.

History of Philosophy—Works of Antient and Modern Philosophers.

Logic—Ethics—Metaphysics.

Political Economy—Jurisprudence, including Civil and Ecclesiastical, British and Foreign Law.

Sciences—Physics, or Natural and Experimental Philosophy—Natural History—Botany, Geology, and Mineralogy—Anatomy and Surgery—Medicine—Chemistry—Meteorology—Electricity—Magnetism—Galvanism—Mechanics—Optics—Astronomy—Mathematics—and Geometry.

Arts of Peace—Architecture—Painting—Sculpture—

† See pp. 362—372, *supra*.

Writing—Engraving—Music.
Art of War—Works on Naval and Military Tactics.

III. HISTORY.

Geography—Voyages and Travels—Chronology.
History (Antient and Modern—British and Foreign—
Civil and Ecclesiastical)—Biography.
Heraldry—Antiquities—and Numismatics.

IV. LITERATURE.

Treatises on Language—Grammars—and Dictionaries.
Philology and Criticism—Rhetoric.
Poetry and the Drama.
Works of Imagination not in Metre—Romances, Ad-
ventures and Fictitious Voyages.
Polygraphy (Works of Authors who have written on
Various Subjects)—Literary Miscellanies.



